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Residual Waste Model State Legislation

Environmental Protection Agency

March 1976

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RESIDUAL WASTE:
MODEL
STATE
LEGISLATION

March, 1976

Environmental Protection Agency
Water Planning Division
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The product of this research is a Section 208 Planner's handbook which identifies and discusses legislative and regulatory provisions, which will permit and control the disposition of residual waste to the land without endangering water quality. The focal point of the handbook is a model statute enttled "A State Residual Waste Management and Resource Recovery Act". The suggested legilslative model addresses all phases of the disposal of the disposal of residual wastes in subsurface excavations or on land.

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RESIDUAL WASTE: MODEL STATE LEGISLATION

by

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March 1976

PREFACE

The work described in this report was conducted under EPA Contract Number 68-01-3550, entered on 24 September 1975. The materials contained in the report are directed to the needs of areawide waste management planners working under Section 208 of Federal Water Pollution Control Act, Public Law, 92-500, as amended in 1972.

This is one of a series of EPA documents designed to provide ready reference materials to the Section 208 planners that are developing solutions to problems of residual waste management. Companion documents currently in preparation by the Environmental Protection Agency, Office of Water Planning and Standards, include a separate manual dealing with agricultural and silvicultural residual wastes and a new manual entitled, Residual Waste, Best Management Practices Handbook, illustrating the application of a set of management practices to solve or ameliorate some of the more frequently encountered residual waste problems.

ABSTRACT

The product of this research is a Section 208 Planner's Handbook which identifies and discusses legislative and regulatory provisions, which will permit and control the disposition of residual waste to the land without endangering water quality. Therefore, existing State, county, regional and municipal laws and regulations for disposal of residuals were researched, and a comparison of these laws, along with interviews of State officials, provided the criteria for evaluating the effectiveness of State provisions included in the Model Legislation.

The focal point of this handbook, from which the analysis and recommendations flow, is a model statute, entitled, "A State Residual Waste Management and Resource Recovery Act." The statutory scheme is structured to support the implementation of areawide planning. The approach taken toward the use of areawide planning is an integrated one. The suggested legislative model addresses all phases of the disposal of residual wastes on land or in subsurface excavations.

The term "Residual Waste" as used in this study is defined to include those solid, liquid or sludge substances resulting from man's activities in the urban, agricultural, industrial and mining environment not discharged to water after collection and necessary treatment. This handbook deals with laws that control the disposal of waste and that encourage resource conservation. This study treats all of the common aspects of regulation, such as permits, inspections and variances; additionally, it deals with those special considerations that have a significant effect upon the effectiveness of comprehensive areawide planning, these include inter-agency authority, technical assistance, record keeping, transportation, classifying special wastes, site selection, closure requirements and enforcement strategies. There are proposed model law provisions for an area categorized as special residual waste considerations, such as hazardous waste, feedlot waste, mine tailings and dredged material, all having a potentially deleterious effect upon water quality.

This handbook is one of a series of EPA documents designed to provide ready reference materials to Section 208 Planners, who are developing areawide solutions to residual waste management problems.

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Chapter I

INTRODUCTION AND METHODOLOGY

1.1 Legislative Authority for the Mission of the 208 Planner

Section 208 of the Federal Water Pollution Control Act Amendments of 1972, subsection (b)(1), provides for "a continuing areawide waste treatment management planning process consistent with section 201 of this act." (1-1).* Subsections (b)(2), (J) and (K) provide that such a planning process shall include:

> a process to control disposition of all residual waste generated in such areas which could affect water quality; and a process to control the disposal of pollutants on land or in subsurface excavations within such area to protect ground and surface water quality.

A review of the Legislative History (1-2) of Section 208 (which was Section 209 of the original, pre-conference Senate Bill) provides some insights as to the range of activities to be included in the residual waste treatment plan.

The legislative history makes clear at numerous places that Section 208 applies to all nonpoint sources. It mentions the need to control all wastes (page 187), all residual wastes that could affect water quality (page 300) and ..."all residual waste generated in the area" (page 1455).

In the development of guidance materials for use by Section 208 Planners, residual wastes are defined by the EPA to include:

> "Solid, liquid or sludge substances from man's activities in the urban, agricultural, industrial and mining environment not discharged to water after collection and necessary treatment."
>
> These wastes include, but are not limited to: sludges resulting from water and domestic wastewater treatment, industrial sludges, utility plant sludges, and mining sludges; solids resulting from industrial and agricultural process waste materials and from non-process industrial and commercial wastes (e.g., demolition wastes, mine tailings, incinerator residues, dredge spoil, and agricultural waste like crop residues, feedlot wastes and pesticide containers); and liquids resulting from industrial side streams and from agricultural processes.

(*References are provided at the end of each Chapter)

1.2 Interaction with Existing Waste Management Agencies

Subsections 208(b)(2), (J) and (K), while they are important, will represent only a fraction of the total energy to be expended by each 208 planning agency. The severity of the residual waste problem (as it impacts water quality) will be different in the various areas, and the types of residual wastes contributing to water quality degradation will also vary, depending upon the powers vested in existing waste management institutions to control these sources of water pollution.

It is anticipated that the planners will seek and obtain assistance from existing waste-management agencies in gathering and analyzing data that describe problems and in the development of alternative areawide management practices. Existing management agencies should be particularly helpful in defining the additional legislative and regulatory measures needed to implement changes in management practices or institutional arrangements for areawide conservation or disposal of residual wastes. An overall approach to development of a plan is presented in "Guidelines for Areawide Waste Treatment Management Planning" published for use by Section 208 Planners. (1-3)

The approach taken in the development of this guide has been to try to anticipate the type of technical and institutuional solutions that the planner will structure in bringing the residual waste problem under control and then to describe the different kinds of legislative support that might be utilized to make this solution workable.

In each of the 208 planning areas the general aims of the residual waste management portion of the plan is to:

(a) Eliminate promiscuous, illegal or accidental dumping of wastes;

(b) Prevent surface and groundwater contamination from existing and planned land disposal operations;

(c) Develop the most economical disposal plans, whether this be spreading, burying, or incineration to reduce bulk prior to ultimate disposal;

(d) Obtain assurance that disposal sites will be free from odors, fires, vectors, explosions and danger to employees and the public at large;

(e) Assist in finding beneficial uses for the specific residuals mentioned in Section 1.1, above, or assist the generators of such waste loads in developing legally and socially acceptable disposal procedures that will minimize or eliminate the impact of these materials on water quality;

(f) Promote resource conservation to reduce the amount of waste going to land fills;

(g) Provide record keeping and collection data on the types and quantities of wastes being disposed of upon the land so that correlation may be made with water quality monitoring data, for use in subsequent planning activities;

(h) Promote awareness in the private and industrial sectors of the problems associated with residual waste disposal, so that the need for source reduction and resource conservation is fully appreciated.

(i) Define institutional arrangements relating charges for residual waste disposal to those receiving the benefits of the services provided by the areawide plan;

(j) Reduce litter and causes of groundwater and surface water contamination by implementing controls at the source of the pollution causing material.

The emphasis in addressing these problems is to be placed on implementing to the extent possible, nonstructural solutions, and utilizing existing institutions to perform waste management functions.

1.3 Strategies Available to the Waste Management Planner

There are a limited number of options open to society in dealing with the problem of residual wastes, and some of these may be beyond the power of even an area-wide waste management agency to employ. The three basic strategies are:

(a) Waste reduction, by extending the life of products and reducing the packaging materials used in moving these products. Buying tires with longer life, building automobiles that last 25 years instead of 10, and reuseable food and beverage containers are examples of this strategy.

(b) Resource conservation, by reclaiming and recycling materials that would otherwise become waste. A start has, of course, be made in many areas, such as salvaging the metal, glass and paper fraction for use in making new products, and shredding wood wastes to make newspaper pulp. A number of experimental programs are underway to produce oil (via the pyrolitic process) or electrical energy from steam plants converted to burn the low energy solid waste produced by most municipalities. Any beneficial use made of materials that would otherwise constitute a disposal problem, could be considered reclamation of a resource.

(c) Environmentally safe disposal of materials for which there is no other use, within the present bounds of technological and economic constraints.

Unfortunately, the third strategy will be the one most heavily employed, until such time as the scarcity of energy and other raw materials tips the economic scale in favor of the first two. The laws and regulations collected and presented here, attempt to utilize and encourage reduction of waste, and resource conservation, but emphasis must clearly be placed upon environmentally safe disposal, both as an interim solution to present problems and for the management of that increment of residual waste (ashes, filter cake, etc.) remaining after efforts at reclamation have been exhausted.

1.4 Organization of Legislative Materials

Legislation dealing with some sets of environmental problems can be packaged neatly into a code section entitled, "Solid Waste Management Act," the "Resource Recovery Act" or "The Water Quality Control Act." All or part of such legislation probably exists in your state. it may be unrealistic to expect to find a sponsor for a new bill entitled "The Residual Waste Management and Resource Conservation Act," and have this apply to all wastes deposited on land or in subsurface excavations and which may have an adverse impact on ground or surface water quality. For this reason, passage of a new model law dealing solely with residual wastes may not be feasible. The principal product of this research is a description of those problems with which the areawide wastes management planner is faced, along with samples of legislation that other regions have found effective in coping with these problems. The suggested legislative and regulatory materials are presented for use on either a piece-meal basis or for adoption as a comprehensive residual waste management model law in those jurisdictions that have not already enacted residual waste management legislation.

1.5 Use of Existing Waste Management Legislation

A starting place for this research was provided by the model acts prepared by the Council of State Governments (1-4), and the National Association of Counties Research Foundation (1-5). These models have already achieved a significant level of recognition, and should be utilized wherever it is practicable to do so. The existing Models are supplemented by paragraphs taken from statutes and regulations of the 12 states surveyed during the course of this study. The rationale for inclusion of specific paragraphs from laws of selected states is presented in Chapter V.

The planner is encouraged to familiarize himself with legislation in his jurisdiction. The primary objective of this document is to provide the pieces of legislation that may be needed to fill gaps that may exist in those laws already available in each state.

Where a provision of an existing Model Act appears to satisfy the need for legislation identified here, use has been made of such a provision and it is identified in Chapter IV as "Model". It is hoped that this deference to existing Models will help to stem the proliferation of overlapping materials and perhaps simplify the task of the planner.

1.6 Use That is Expected to be Made of This Handbook

The surest way to prevent residuals from causing water quality problems is to prevent, or to reduce the extent of, their disposal or dispersion on land or in subsurface excavations in the first place (by employing strategies "a" and "b" as discussed in Section 1.3). To assure that the residual waste fraction, which cannot be reused or recycled, is disposed of in accordance with an environmentally safe and socially acceptable procedure, the simplest possible system of laws and regulations providing the necessary permits, licenses, inspections and specific proscriptions, must be available for guidance of the waste management agencies.

The planner, after devising an approach to ameliorate each of the major residual waste disposal problems that he has identified, must determine whether or not the plan can be implemented within the framework of existing laws. In some instances a combination of laws and regulations, vigorously enforced, will provide the areawide planner with a non-structural solution, or a "Best Management Practice" for one of the pollution sources that must be abated in a given area.

An example might be the use of ecological zoning (to limit construction on steep slopes and flood plains), building codes (to require anti-siltation measures during and after construction) and a strong anti-litter law, all of which may be combined to reduce the total pollution burden from urban runoff to an acceptable level. To implement other management practices, the planner must often establish the existence or non-existence of a particular type of enabling or enforcement provision, without which a proposed solution may be unworkable.

The problem oriented approach adopted for presentation of "model" legislation in this report is designed to assist the planner to:

(a) Understand the type of regulatory provisions proved useful in other jurisdictions;

(b) Locate such law or regulation, which may already be in force in his own jurisdiction;

(c) Locate the legislative or regulatory body (city, county, state) that would sponsor, enact or promulgate the needed authority, and finally,

(d) Make a comparison of samples of statutory or regulatory language that has proven to be effective in some other jurisdiction, with the law that is available in his 208 planning area.

It is anticipated that areawide planners will have access to legal counsel and that use will be made of these services. Many elements of the model legislation presented in this report must be adapted to fit existing regulatory agencies and waste management institutions, and professional personnel from the financing and legal offices in your area should be consulted for assistance in these tasks.

1.7 Research Methodology

The first step was to define some of the more frequently mentioned problems that the prospective Section 208 Planners have discussed in the residual waste elements of their proposed plans. From this list, a set of problems was selected that could be resolved, or at least ameliorated, by legislative authority, from any level of government. This was accomplished by:

(a) On site interviews with four of the EPA Regional 208 Planning Directors.

(b) A review of the preliminary work plans from 19 EPA Regions to determine the type of problems that areawide planning would encompass.

(c) Interviews with State and regional planners and waste management operational staffs.

(d) A search of the open literature.

(e) A review was made of 54 pieces of model and currently enacted legislation at the Federal, State, county and city levels, each of which was designed to help solve specific waste management and water quality problems.

The product of step one is the description of specific needs (in Chapter 3) related to an areawide planner's waste management problems. These descriptions indicated the type of legislation that should be available for the successful implementation of an areawide waste treatment plan. Persons interviewed during this first phase of the project are mentioned in the Acknowledgement Section of this report.

The second and third steps (which were accomplished concurrently), required the construction of a list of states, counties and regions that had developed comprehensive statutes or ordinances dealing with some part of the total problem of residual waste. This was done with the assistance of the EPA Project Officer, the EPA Regional 208 Directors and references to exemplary waste management laws found in the literature. Most of these are Water Quality and Solid Waste Management Laws.

As the list of jurisdictions with noteworthy laws was produced, contact was made by telephone with the State and local officials concerned, and copies of their current laws and regulations were obtained.

Upon completion of steps 2 and 3, documentation had been accumulated on the laws and regulations of the twelve sample states used to provide an integrated piece of legislation for the control of residual waste that may have an adverse affect on water quality. The 12 states selected are:

Alabama
California
Colorado
Connecticut
Illinois
Minnesota
New Jersey
New York
Oklahoma
Oregon
Pennsylvania
Washington

In Step 4, the study team interviewed by telephone an official in each of the jurisdictions listed, to obtain background information regarding the size and scope of the regulatory activities, and the views of these officials with respect to the efficacy of the law under which they were operating. The laws of each state were reviewed and, in preparation for each interview, the salient characteristics of the laws of each of these jurisdictions were noted on a separate work sheet. The study team noted that many of the same problems are legislated upon at several levels of government and at this point Exhibit 1 was developed to indicate the various levels of government at which a law might be found.

In Step 5, the work sheet notes regarding the intent of the various laws were posted to the matrix shown on Exhibit 2, indicating which jurisdictions had a law or regulation identified as dealing with one of the problem areas that emerged from the first step.

It is reiterated here for emphasis that neither the matrix, nor any other statement made in this report is intended, nor can it be interpreted as a ranking of the effectiveness of the residual waste laws in the jurisdictions included in our sample. This is so for many reasons, three of which are worth noting: first, all of these jurisdictions were selected because they have been cited for a forward looking program; second, some jurisdictions may not have a problem or the State may have such an effective non-legislative solution to deal with it, that they don't now need a law, and third, the State may have a piece of legislation in its Health Code, Governmental Code, Administrative Procedures Act, Code of Civil Procedure, or even the Evidence Code, that deals with the problem without respect to the agency that needs such authority, e.g., it is available to all departments of the government.

The scope and duration of this project did not contemplate a comprehensive search of all the codes and regulations of all jurisdictions in the sample, and the basic requirement was satisfied when a law or regulation dealing with the specific residual waste problem was found in the water quality, solid waste or resource recovery acts. Other codes were searched for only a few states.

In Step 6, notice was taken of the fact that a number of jurisdictions (and the model law) each dealt with the same problem, and here the researchers made a value judgment and selected the section that was reported to be effective by the State agency and was sufficiently descriptive to be understood by the widest range of potential users. The rule stated earlier, RE: preference shown to established MODELS, was followed, and if the language in the model statute was adequate, that it is the only language recommended in this report. Where the recognized models are silent, or an enactment found in another jurisdiction appears to be a worthwhile supplement to the model, or is clearly superior, the supplemental section is included as an alternative. A citation to the originating jurisdiction is provided for each Section or Paragraph in the "Model Legislation", Section 4 of this report.

In Step 7 the study team modified an existing law or regulation, or prepared a new section dealing with the specific residual waste problems identified in Step One. These sections are integrated into the model Residual Waste Management Act presented in Section 4.

1.8 Relating the Problem to Available Legislative Solutions

Starting with the premise that if there were no residual waste problems to be controlled, there would be no need for waste management laws or regulations, an examination was made of each section or paragraph of the existing laws in selected states to determine the problem each was designed to avert or control. This analysis, which is presented in Chapter III, provides several benefits: first, it enables the planner to better appreciate the meaning, intent and the limits to the usefulness of each of the legislative or regulatory provisions commonly used, and second , the inclusion of alternative statutory language offers the planner an opportunity to suggest integrated solutions to several problems which could be abated by the same set of legislative or regulatory provisions.

Section 3.1 presents an analysis of the more or less standard legislative provisions in most laws. These are made a part of the Model presented in Chapter IV in the interest of providing a comprehensive Residual Waste Management Act. Section 3.2 presents a description of some of the recurring, waste-related water quality problems appearing in the 208 Planning Grant Applications, along with recommendations regarding the legislative or regulatory provisions which are included in the Chapter IV Model Law. Section 3.3 describes some of the problems associated with conservation through the recycling of waste materials.

Chapter V presents criteria used in selecting sections from State laws for use in the Model. Four appendices are provided at the end of this report. Appendix "A" is a compilation of Definitions used by the 12 States in their waste management laws; Appendix "B" is the complete text of the Minnesota, multi-county Metropolitan Solid Waste Disposal Act. This is presented as a model regional waste management act and is an appendix because it does not fit logically into the Chapter IV Model law.

Appendix "C" is the patterned interview format used as a check list in the discussions of waste management laws with State officials. Appendix "D" is a list of Federal Laws & Regulations that pertain to water quality aspects of residual waste.

REFERENCES - CHAPTER I

(1-1) Public Law 92-500 Federal Water Pollution Control Act, Amendments of 1972.

(1-2) "A Legislative History of the Water Pollution Control Act Amendments of 1972," Reported by the Environmental Policy Division of the Congressional Research Service of the Library of Congress, Vol. 1, Jan. 1973, Serial No. 93-1.

(1-3) "Guidelines for Areawide Waste Treatment Management Planning," U.S. Environment Protection Agency, Aug. 1975.

(1-4) "1973 Suggested State Legislation - State Solid Waste Management and Resource Recovery Incentives Act," Council of State Governments, Lexington, Kentucky, 1974.

(1-5) "Suggested Solid Waste Management Ordinance for Local Governments," by National Association of Counties Research Foundation, Report No. EPA SW-83d, March 1974.

CHAPTER II
SUMMARY AND CONCLUSIONS

2.1 Objectives of this Research

The main thrust of this Handbook project was to develop descriptions of the water quality problems associated with residual waste, and to review the solid waste and water quality laws of twelve sample States to find effective legislative or regulatory solutions that have been developed and are presently in use. Information regarding specific problems and the effectiveness of State regulating measures was obtained from waste management, water quality and health officials of the sample States and of the Federal government. After validating the list of residual waste problems which are related to water quality, and the efficacy of the laws and regulations in use, the Model Law (Chapter IV) was constructed using provisions of the States' Acts.

2.2 Overview

A summary of the subject matter of this research is presented in two exhibits. Exhibit 1 in Chapter III shows the classifications of the laws that relate to residual waste and the level of government at which the legislative enactment or rule making generally takes place. This exhibit also indicates the level at which these laws are enforced. Exhibit 2 in Chapter V shows the response of each of the sample States to the identified need for either a law or a rule to assist in the management of residual wastes.

The principal recommendations resulting from this review of existing residual waste management legislation are embodied in those sections that are incorporated in Chapter IV, the Model Law. An outline of the Model is provided at the beginning of the Chapter. A rationale for the inclusion of each of the sections in the Model Law is presented in Chapter V.

2.3 Findings

At least one State in the sample has a law or regulation dealing with every one of the residual waste problems. A State section was used for every subject area except for the control of transportation of hazardous wastes. A new section was drafted to cover the transportation problem.

In every other subject area, the provision(s) incorporated in the Model is adapted from an existing law or regulation that is effective in one of the States.

The greatest need for new legislation exists in these three areas: programs of State and local incentives for resource conservation; specific provision for permitting the use of sludge on land; wider recognition of the benefits to the State from comprehensive, "water tight" control of hazardous wastes.

The first of these problems is beyond the scope of this project. The second and third are discussed in Chapter III and Chapter V.

2.4 Characteristics of State Laws

The more important characteristics of the laws and regulations of the twelve States in the sample are displayed in Exhibit 2 in Chapter V. The extent and the similarity of the response with which all of these states have met the challenge of managing their residual waste problem is more remarkable than the differences that appear. Each of the States has provided a law for all of the standard or common problems of waste management.

Of significant interest to Section 208 Planners is the existence of authority for areawide waste management planning. Each of the States in the sample has some form of enabling legislation.

That the persons responsible for implementation of these laws have the ability to improvise, and so to provide the comprehensiveness not supplied by the legislation, was apparent from the interviews.

Every State but one has made provision for an advisory council, and all but two have addressed the problems associated with closing the land fill sites. California, Oklahoma, Oregon, Pennsylvania and Washington have provided a definition of solid waste that embraces the definition of Residual Waste currently used by the EPA. New York's definition of solid waste is almost as broad as that formulated by the EPA for residual waste. The remaining States have provided exceptions that may prove to be important. Eight of the twelve States DO INCLUDE sewage sludge in their definition of solid waste, which is encouraging. A reason for the narrower definition may be that those parts of the total residual waste load which are not covered under the Solid Waste Acts, are controlled and defined by a number of other agencies of the State: e.g., Departments of Agriculture, Mines or Health.

A number of subject areas are not covered in the solid waste or water resource law of some States in the sample. It is possible that a regulation is in existence under one of the laws of that State which was not included in this review.

2.5 Provisions for Hazardous and Toxic Wastes

The substantive area in which the greatest disparity was found is the differences in approach that were used in classifying the wastes which can be safely disposed in an ordinary site versus impervious bottom landfill sites. All of the States in the sample, except Colorado, Connecticut, New York and Washington, have a regulation that differentiates between ordinary (inert) wastes, and special (either oily, hazardous or toxic) wastes that must be given special handling. In the four States where no specific regulation of special wastes was found, interviews with State officials indicated that the special (hazardous, etc.) wastes are treated on a case by case basis. Many States are without adequate "safe sites" and must rely on out-of-state disposal or temporary storage as their only solution to the hazardous waste problem.

The problem of hazardous and toxic wastes was presented in depth in a 1972 study by the National Association of Counties (2-1) and the solutions suggested therein are discussed in Chapters III and V of this report. From the standpoint of a Model Residual Waste Management Act, a set of nationally accepted definitions would be very useful. California has developed definitions for four categories of wastes and three classes of landfill sites. These are presented in Chapter IV and discussed in Chapter V as part of the recommended Model Legislation. These definitions could be used as a point of departure for a set of State EPA definitions which might include:

- Ordinary wastes - inert, non-toxic, (will have no effect or negligible effect on water quality)
- Special wastes - oily, putrescible, (will have minor effects on water quality)

- Hazardous wastes, (will have a significant effect on water resources)
- Extremely hazardous wastes, (has potential for calamatious or irreversible effect on water quality)

For each of these categories standard handling and disposal procedures could be worked out among the several States.

REFERENCE

(2-1) "Basic Issues on Solid Waste Management Affecting County Government," National Association of Counties under EPA Grant #S-802294, May, 1973.

CHAPTER III

PROBLEMS ADDRESSED BY THE MODEL RESIDUAL WASTE MANAGEMENT ACT

3.1 Essential Elements of a Legislative Enactment

Using the premise stated in Section 1.8, that if there were no problems to solve by legislation, there would be no need for laws, an attempt is made here to present the rationale for each of the sections included in the proposed Model Residual Waste Management Act. Many sections have a very legalistic basis for their existence, and other sections relate to specific residual waste problems, which are described in various 208 planning grant applications. This Section (3.1) deals with the legally, or customarily, required elements of a law. Section 3.2 deals with the need for specific solutions to waste management regulatory problems, and Section 3.3 deals with the need for legislation to encourage resource conservation.

3.1.1 Planners Role in Preparing Legislation

It is expected that many 208 planners will participate in the technical aspects of proposed statutes, regulations or ordinances (or revisions thereto) in the course of developing a viable waste management plan. It is hoped that this method of presenting the rationale for the model will provide some insight into the necessity for the type of formal language used by writers of laws and regulations. While the planners and the professional staff of the waste management operating entities will be called upon to contribute information for new legislation, the assistance of legal counsel should be obtained in preparing drafts for enactment by a legislative body.

3.1.2 Relationship between Statutes, Ordinances and Regulations

A statute is a law which is a legislative enactment of a Sovereign State, or the United States. This includes the Federal Government and each of the Several States. An ordinance is a law and is the legislative enactment of a municipality, either a county or a chartered (home rule) city, which is empowered by the state to legislate in specified subject areas. The statutes are enacted by the U. S. Congress or State Legislatures and ordinances are passed by Boards of Freeholders, Boards of Supervisors, City Councils, and, in some instances, by the Governing Board of Special Districts.

Rules and regulations are promulgated, after notice and hearings, by administrative agencies, in accordance with guidelines established by an appropriate legislative body.

The rules and regulations may cover only the subject matter specified in the enabling legislation which delegated rule making authority to the agency.

Regulations promulgated by an authorized agency have the same force and effect as a law passed by the legislative body delegating the rule making power to the agency. The subject matter of the regulations, usually the how, when and where aspects of the overall regulatory scheme that is authorized in the enabling legislation, may be made an integral part of the law in some states. At the municipal level it is not unusual to find that the regulations have been passed or enacted by the Board of Freeholders, Supervisors or Council, and are, in fact, part of an ordinance.

3.1.3 Choice Between New Law and Regulation

A regulation can be revised (with Notice) to reflect new experience much more easily than a statute or an ordinance, and the regulations are written by persons with technical expertise in the residual waste field. These are the principal reasons that this type of legislative authority is delegated in the first place.

The thrust of the search for applicable effective legislation did not permit the research team to discriminate against a useful provision because it was "only a regulation," for, in fact, other states have similar provisions that are part of the statutes.

If the planner, or areawide waste management activity, finds that the legislature has passed an enactment under which an existing agency of the state is empowered to make the regulation or rule required to implement the plan, interaction with this State Agency will probably produce the needed authority. A regulation is to be preferred over a statute because of the initial ease of passage and the greater freedom that the technical experts have to modify the rule, if required.

3.1.4 Governmental Levels at Which the Law and Regulations Are Enacted and Enforced

Before the planner seeks a new law or regulation, he must be satisfied that the act or regulation that he needs does not already exist. States have adopted a variety of control strategies, and the required authority may be set forth in the water quality acts, solid waste acts, public health acts, or environmental protection acts, to name just a few. In some jurisdictions the required authority exists because a court found it to be implicit in another act. In some jurisdictions, expressed limitations on dumping that are contained in a solid waste act are not even used because the regulatory authority granted in the water quality or public health acts provide a more effective method of controlling promiscuous dumping.

The combination of enactment/enforcement powers that are exercised at the state and county levels only, or at the municipal level (whether it be a city or a city/county), are shown in Exhibit 1. This will provide the planner with some insight as to where he may look for an existing law. The planner may obtain additional assistance from the offices of the City Attorney, the County Attorney and the State Attorney General.

3.1.5 Problems Addressed by the Standard Sections of Environmental Management Laws

The following provisions are most often found in legislative enactments (statutes and ordinances), as opposed to regulations, but the problems faced by the legislators are often present when a regulation is being prepared.

3.1.5.1 Policy Declarations

The declaration of policy, which is usually the opening paragraph of a law, serves several important purposes. It provides the courts and the citizens of a community with the official public policy, as announced by the legislative body of that community, regarding this particular problem. When interpreting this law the courts can be expected to apply a time honored (3-1) practice of searching for the meaning that advances the policy stated by the legislature. The policy statement also establishes a constitutional right to legislate on this subject. The most common basis for legislative action

EXHIBIT 1

LEGISLATIVE & REGULATORY PROVISIONS BY LEVEL OF GOVERNMENT

Categories of Legislation	STATE GOVERNMENT		COUNTY GOVT.*(ONLY)		CITY/COUNTY**	
	Enactment	Enforcement	Enactment	Enforcement	Enactment	Enforcement
PLANNING MANDATED (& ASSISTED BY STATE)	✓	✓	✓	✓		
FINANCING - OF PLANNING	✓	($Supplied)				
FINANCING - OF FACILITIES & SERVICES					✓	($ Supplied)
PERMITS	✓		✓	✓	✓	✓
STANDARDS						
STORAGE OF WASTES	✓		✓	✓		
COLLECTION & TRANSPORTATION					✓	✓
SITE OPERATION					✓	✓
TRANSFER STATION OPERATION					✓	✓
INCINERATION				✓		
RECYCLING & REUSE	✓				✓	
SITE CLOSURE	✓				✓	✓
RECYCLING REUSE RECOVERY INCENTIVES	✓					
SPECIAL CONSIDERATIONS						
HAZARDOUS WASTES	✓		✓	✓		✓
AUTOMOBILE ABANDONMENT	✓				✓	✓
OILY WASTES	✓				✓	✓
DEAD ANIMALS	✓		✓			✓
AGRICULTURAL WASTES	✓		✓	✓		
MINE TAILINGS	✓	✓				
DREDGE SPOIL	✓	✓			✓	
SEWAGE SLUDGE	✓					✓
FEED LOT WASTES	✓	✓		✓	✓	✓
TANK CLEANING WASTES	✓				✓	✓
DEEP DISPOSAL WELLS	✓	✓				
STREET SWEEPING					✓	✓
LITTER	✓	✓			✓	✓

* A County Government function is one that is typically a State responsibility, delegated exclusively to a County Agency, e.g. County Health Dept., Sheriffs Dept.

**Either the City or County may be the municipal government, with mutually exclusive jurisdiction in different areas of the same county.

is the exercise of the states' police power (power to protect the health, safety and welfare of the citizenry) and its power to levy taxes to raise revenue. While a court of law may find that an enactment does, or does not, meet this constitutional requirement, irrespective of the policy or stated purpose of the legislation, it has become customary for legislatures to state that the purpose of this law is to "protect the public safety, health and welfare" of the citizens, i.e., it is an exercise of the police power of the State.

3.1.5.2 Definitions Used in the Laws

There are two problems which legislative bodies attempt to avoid by providing adequate definitions of their terms; the first is the constitutional prohibition against "vagueness" (3-2) and "overbreadth" (3-3), and the second involves the propensity of the courts to utilize the ordinary lay definition of technical words and phrases unless the law makers have made it clear that the terms in the law are to be interpreted in their special, technical sense, as shown in the definitions section.

The constitutional problems involving vagueness come to the forefront when the court is asked to enforce a penal section which an ordinary citizen (in the opinion of the court) would have difficulty understanding. The overbreadth problem is encountered when a law prohibits conduct beyond that which is necessary to achieve the stated purpose of the enactment. The most serious cases usually involve the infringement of a constitutionally protected right, such as the right of Free Speech. An example of a finding that a law is unconstitutional for "Overbreadth," is found in some Litter Control Ordinances. (3-4) (3-5).

A wide variety of definitions are used in the laws of the 12 states reviewed and the basis of these differences are not always apparent. To provide the planner with the widest choice of terminology, the definitions from all of the laws are alphabetized and presented in Appendix A of this report.

3.1.5.3 Authority*

This heading is used to designate a group with the primary responsibility for developing the residual waste management plan. This group is necessary to coordinate residual waste efforts on an areawide basis, and, because of the special expertise required, a legislative body can feel free to delegate authority which it could itself, constitutionally exercise.

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*Sections 3.1.5.2 through 3.1.5.12 are summarized from Sections 6 to 17 of "Suggested Solid Waste Management Ordinance for Local Government."

3.1.5.4 Enforcement Agency (For State or Local Laws)

This section is used to delegate authority and responsibility for insuring compliance with the waste regulations and laws. Enforcement could be the responsibility of a group concerned solely with residual waste or a group enforcing all environmental laws. But the problem to be resolved, regardless of who enforces, is one of ensuring that someone does have a clear delegation of authority to enforce the law.

To delineate the duties and authority of the group given primary responsibility for administration of a waste management ordinance, this section specifically outlines this authority and responsibility. Much local authority must be exercised with the approval of, or in conformity with, state authority. Powers and duties of the agency should be delineated to avoid confusion as to what the agency can and must do, and to prevent overlap with the authority of other agencies. This section may describe in detail the powers and duties of the Administrative Department. This must be done in cooperation with the Enforcement Agency and an Advisory Board; the plan must be compatible with the State Plan and submitted to the State for its comment and approval.

3.1.5.5 Define Planning Functions

The legislative body, when it delegates some of its own authority, is expected to provide guidelines within which the delegated authority is to be exercised. The legislative enactment must, therefore, specify what the Management plan will show. All present management activities and recommended activities for future use must be taken into consideration; i.e., population growth, waste generation, land development regulation system, management aspects such as organization, financing and regulatory capabilities, and qualitative and quantitative increases in the residual wastes expected to be generated from residential, commercial, industrial and agricultural sources.

3.1.5.6 Rule Making Authority

Specific language is required to provide to the agency responsible for administration of residual waste plans and ordinances the authority to regulate and make necessary rules. The California Government Code, Chapter 4.5, Rules and Regulations, § 11272 and 11374, are typical of state laws that limit agency powers to those specifically conferred by a statute.

3.1.5.7 Powers and Duties of Agency

The State constitution and enabling laws of State legislatures must be taken into account in defining the duties of either a state or municipal agency. The requirements or minimum standards set forth in Federal or State laws may preempt a lower echelon body from acting at all, or may require that the standard established be equal to or higher than the standards incorporated in the Federal or other State law. The purposes of the "Powers & Duties" Clause are as follows:

(a) To specify how the responsible agency must conduct contract negotiations before committing to a contractor for collection, disposal, etc. Here the agency is after legal and policy approval of contracts, as well as guidance on contents of contracts.

All contracts shall meet the following requirements: be with consent of local legislative body; prior approval by Chief Legal Officer; be for not less than "X" years and not more than "Y" years; meet all insurance requirements of ordinances, and be awarded to lowest qualified bidder.

(b) To give the agency responsible for overall waste management, an ability to create local authorities for dealing directly with the management of residual waste. The more localized the implementing authority is, the closer the problems can be analyzed and worked.

The director may be authorized to create one or more waste management districts within the boundaries of this locality to provide for efficient and economical disposal.

(c) To determine the most economical number of contractors to serve a given locality and to issue permits to qualified contractors in the numbers desired. This prevents duplicative or uneconomical arrangements.

The director shall determine number of contractors needed to serve each locality and issue permits to qualified contractors.

(d) To allow competitive interaction and negotiation between private contractors and their customers.

The director shall not set any service charge for non-residential waste management by private contractors.

(e) To develop a means of controlling disposal from industrial, commercial and agricultural generators and to develop information on wastes while allowing industry to develop their own waste management program.

To issue permits for storage, transport, processing and disposal of wastes by the generator thereof. The director shall prepare application forms for all such permits, requiring information on name and address of applicant.

(f) To insure that all wastes are collected by the contractors or agency collecting in the area so that no collectible wastes are disposed of in an unapproved manner. The permit reference may allow private industry to develop its own waste disposal plan.

All generators of wastes other than those operating under an approved permit shall use the services of the local government or contractor for the district in which such waste is generated.

(g) To provide enforcement tools to the agency, it is usually permitted to issue citations. In all actions involving permit holders .. the enforcement agency shall cite the violator to appear before the Administrative Department .. provided
In all instances ... where inspection ..... reveals violations of the laws of the state, ordinances of the locality, or rules and regulations established by the enforcement agency or when the enforcement agency is aware of such violations, the violator shall be cited to appear in the Superior (Supreme or Municipal) Court at a date and time shown on the citation.

3.1.5.8 Permit Issuance Authority

The permit is the most basic and pervasive element of a regulatory scheme. The applicant is required, as a condition of issuance for the permit, to agree to comply with all laws, rules and regulations and to maintain certain records and to allow inspection at reasonable times (e.g. during regular business hours) of the facility and records that are required to be maintained.

Enforcement of the law is made possible by this right of inspection and made economically feasible by the summary procedures provided for revocation of the permits. Note that unless there is an immediate threat to the public health, the permit revocation procedure does call for meeting "due process" requirements, e.g.: Notice and opportunity to be heard. This is discussed under the "Notice and Hearings" heading, *infra*.

Permits also provide the basis for collecting fees that defray the cost of necessary inspection and other compliance measures. Other uses include the collection of information regarding composition, quantities and place of disposition of wastes, and when private waste disposal companies are relied upon to collect residential refuse, the permits control unnecessary overlap of franchisee routes.

3.1.5.9 Notice, Hearings, and Judicial Review

The due process clause of the fifth amendment to the U. S. Constitution, as it has been interpreted by the Courts, requires that parties affected by an administrative action (which includes both the rule making and enforcement functions), is entitled to "notice and an opportunity to be heard." The manner in which the due process requirement is met varies from state to state. The procedure to be followed in giving notice to affected parties, providing for an administrative hearing and an appeal to the courts, is sometimes set forth in each statute or regulation that affects members of the general public. Some states have codified the notice, hearing and review procedure in their Administrative Procedures Act.

3.1.5.10 Injunctions to Abate any Threat to Public Health

A need often exists to obtain speedy relief from an unsanitary disposal operation, and many regulatory laws permit the regulatory agency, after it has requested abatement of the nuisance, to apply to the court for a Temporary Restraining Order (TRO), pending issuance of a permanent injunction. Because an injunction is a request for EQUITABLE RELIEF, most states require the petitioner for an injunction to show that the damage being caused by the offender is irreparable, and that the petitioner has no adequate remedy at law.

California, at least, has made provision for waiving the usual equitable requirements for a showing of irreparable harm and inadequateness of the legal remedy, and permits issuance of a Summary TRO that satisfies the need for truly speedy relief where an offender is endangering water quality. (3-6)

The provision for a Summary TRO can only be made by the State Legislature. Typical language used by a municipality is:

> "Injunction - in all cases where a violation .... creates an immediate threat to safety, health and welfare or environment. The Agency shall cite the violator ... and order correction to begin forthwith. If such corrective measures are not taken The Enforcement Agency shall notify the Chief Legal Officer who shall immediately apply to "X" court for an injunction."

3.1.5.11 Advisory Boards

Advisory Boards are used to bring a broader range of abilities and interests to the permit and regulation process. This fosters public interest and participation and brings the non-bureaucratic view into decisions affecting the area. A typical legislative provision for such a board would include the following:

> Appointment ... by majority or local legislative body ...
> Terms .... four years with staggered initial terms
> Organization and meetings
>
> ...
> Duties ... shall advise in preparation of a Waste Management Plan ... may review permit applications and recommend revisions ... Shall attend all hearings on rules and regulations ... and may make recommendations to the Director. Shall attend hearings on rates, ...
> May attend hearings on complaints ...

3.1.5.12 Establishment of Title to Residual Wastes

A problem may develop where scavengers collect segregated wastes, such as paper, glass or metals that were put out for collection by an authorized materials reclamation contractor, perhaps under a franchise from local government. Under common law principles, the materials placed outside of the property controlled by the property owner, e.g. at the curb, are considered to be abandoned by the previous owner. In the absence of law that indicates the point at which title changes, and prohibits the gathering of wastes by other than franchised collectors, the intent of a city or region-wide reclamation project may be thwarted by persons that would collect the material for sale in the open market. A sample statement might read:

> Title to Waste - In absence of agreement to the contrary, title to all wastes shall rest in the owner of each management activity or facility in which waste is placed.

3.1.5.13 Need for Public Participation and Public Education Regarding Residual Waste Facilities Requirements and the Public's Role in Reducing Waste Burdens

In addition to public hearings on specific regulatory actions and public participation on an advisory board, both of which involve a small fraction of the population, the planning decisions should reflect the mood of the citizenry that may ultimately vote on the bond issues required to bring the plan to fruition. The legislative action required will come from the local government and may be in the form of an allocation of funds along with specific guidance regarding ways and means of communicating the plan to the public. Specific statutory language is lacking in this field, but the elements of the required program are contained in the EPA publication, "Developing a Local and Regional Residual Waste Management Plan." (3-7)

3.1.5.14 Statutory Provision for Area Wide Waste Management Facilities

The frequently encountered desire of municipalities to guard the prerogatives of "Home Rule" and the State's occasional reluctance to finance inter-county facilities, come into direct conflict with the statewide shortages of land disposal sites and the economic fact that many approaches to resource reclamation require large volumes of waste to operate efficiently.

The optimum legislative solution appears to be a combination of intermunicipal agreements along with State legislation that mandates the development of area wide residual waste planning. (3-8)

A number of States have recently legislated on this issue, including California (3-9), Colorado (3-10), Connecticut (3-11), and Oklahoma (3-12). For a complete description of the range of optional governmental arrangements for cooperative waste management facilities, see EPA Report SW-47-ts, "Inter-Governmental Approaches to Solid Waste Management. (3-13)

3.1.5.15 Bonds and Insurance Provisions

Private contractors engaged in hauling or disposal operations can be expected to insure against the risks that are inherent in their business operation and to post a bond insuring that they will faithfully perform the services for which they have contracted.

Performance bonds are usually required by State law to protect the governing body in the event a contractor defaults. Each performance bond will have a time limit set out in which a claim must be reported to the insurance company. Failure to notify the company in that time will void the policy. All insurance policies should be reviewed periodically so that the rights of the locality can be protected.

This section could be expanded to require a performance bond of all permit holders who discontinue their activities before the expiration date of the permit, assuring continuance of the activities covered thereby. (3-14)

Considering the continuing liability of persons who use their land for disposal of wastes, a bond may also be required as a condition of a permit that will serve to assure the indemnification of anyone who is damaged as a result of the waste disposal operation. Such a bond may be required to guarantee clean-up or provision of an alternate water supply in the event the land fill later leaches deleterious materials.

3.1.5.16 Need for Technical Clauses Dealing with Repeal, Saving and Severability

3.1.5.16.1 Repealers. This section is used when a new law supersedes sections of an existing law. This is in effect an amendment to existing laws and should be accorded the same care in construction as any other amendment to a law. In some statutes there is occasionally used an "Omnibus Repealer," which states that "Any provision of an existing law which is in conflict with this provision is hereby repealed." An express repealer clause is not needed if, in fact, no preexisting law is affected. If other laws are to be repealed, they should be clearly delineated as to chapter, sub-chapter and section. If your new statute is not reconcilable with an earlier enactment, the courts will find that the earlier one was impliedly repealed by the

3.1.5.16.2 Savings Clause. This is ordinarily a part of the repealing provision, and it is intended to "save" rights, pending proceedings, penalties, etc., from possible annihilation which could result from the unrestricted repeal of the previous statute. *State v. St. Louis, 174 Mo 125.* This means that if the City Attorney or District Attorney is in the process of prosecuting a landfill operator for violation of an ordinance or statute, and a new law is passed that does not specifically "save" such actions commenced under the old law, all of the prosecutor's work will have been lost; he must then begin again under the new law. This would be true even if the new law provided similar penalties for the offense being prosecuted under the old law. *Davis v. General Motors Acceptance Corporation, 176 Neb. 865 (1964).*

3.1.5.16.3 Severability Clause. This is also referred to as "separability," and is used to express the intent of the legislative body; if one or more sections of the enactment are found to be void by a court, then the other provisions of the law shall remain in force. Such provisions are of questionable value for several reasons:

(a) If a court finds that a provision is inseverable, the entire act will be struck down, the severability clause notwithstanding. The U.S. Supreme Court took such action in *Williams v. Standard Oil Co.*, 278 U.S. 235 (1929).

(b) If a court heeded such a request by the legislature in every instance, it is possible (but not probable) that the only section of an enactment which would survive disection by the court would be the repealer clause. This could lead to the dissolution of all the law that this jurisdiction has on the books dealing with waste management, (3-15)

(c) The courts can be expected to interpret or construe the enactment in such a manner that minimum violence will be done to the part which is salvageable and that part of the law will continue to serve until the legislature passes a new bill.

3.2 Problems Associated with Material Conservation and Disposal of Residual Wastes

3.2.1 Land Disposal of Residual Wastes

3.2.1.1 Need For Control of Materials Going to a Landfill

Fire, explosion, generation of toxic gasses and dangerous levels of radioactivity are hazards which can best be avoided by close control of the nature of material being placed in the landfill and, for some materials, control of the method of placement, and precise location of the materials within the landfill. Such controls would include:

(a) Notification of possible problems by responsible parties at the source of the wastes; waste generator should provide a description of the materials being deposited in landfills.

(b) Knowledge of disposal problems by waste transporters; also knowledge of the contents of each load and of reactions to anticipate when incompatible materials are mixed, e.g. sodium cyanate with waste acid.

(c) Knowledge on the part of the land disposal site operator of hazards and problems; he should know how to perform certain tests and have equipment to do so; he should be authorized to turn away loads that are not acceptable and should keep track of the location of flammable and other hazardous materials that could affect water quality and that might also endanger the safety of site operations personnel. Site operators should be trained to cope with these emergencies and there should be a contingency plan with the local disaster agency and/or fire department to respond in the event of an explosion or conflagration.

Legislative authority having a bearing on the above could encompass:

(a) Identification of substances by source in a bill of lading.

(b) Licensing of waste transporters, including provision for training and testing of truck operators.

(c) Identification of substances at disposal area by bill of lading from source.

(d) Licensing or permitting of land disposal areas to include training of personnel in the identification and proper handling of wastes.

The authority should also include the ability on the part of the regulatory agency to obtain records on the source of industrial wastes, types, volumes and the dates on which wastes were disposed into each disposal area. This could be done routinely, as part of the permit or monitoring program.

3.2.1.2 Pesticide Containers

Pesticide containers are a subject of special interest in many states, such as California, which have a large articultural industry. The containers, unless washed and rinsed, should be disposed of only at a toxic waste disposal site, and should be buried, not burned. Washwater wastes must be brought to a designated transfer station for removal to a safe disposal site, rather than being discharged at the farm. If these containers are washed at a cooperage or at the manufacturing plant, the same rules should apply. Regulatory authority should encompass surveillance of use of pesticides in the area and, from that, develop information on use of containers, their disposition, etc. The waste management agency should also plan for separate burial areas within a hazardous waste site.

3.2.1.3 Incinerator Ash or Pyrolytic Char

Because of potential heavy metals content these substances should be considered hazardous or toxic wastes. Either the regulatory or waste management operating agency should be authorized to determine the quality and quantity of ash and char offered to it for disposal in order to pass judgment on the method of disposition, or to recommend the most appropriate methodologies for the region.

3.2.1.4 Hazards to Public and Wildlife

Physical hazard to public by entry upon disposal site is not an esoteric problem, but one which can easily be overlooked. Children or adults wandering onto disposal sites pose a real public safety problem. Regulatory authority to require effective exclusion of the public by secure fencing should be explicit in state and local legislation.

Wildlife, particularly birds, can be quite vulnerable to the danger from land disposal of certain hazardous or toxic wastes. Terrestrial animals can, for the most part, be excluded by good fencing. Birds are another matter. No one has found the solution for protecting waterfowl and other aquatic birds from landing on ponds of waste oil, acids, etc. When such a solution is found, the regulatory agency should be able to implement it in that jurisdiction. State and local law should authorize the permitting agency to call for the installation of new facilities as necessary to protect animal life.

3.2.1.5 Need for Monitoring of Groundwater

Monitoring of groundwater by sampling and analysis of chemical content is of utmost importance. The law should enable or require the imposition of a self-monitoring program upon the operating agency, and the regulatory agency should also be authorized to carry out its own check monitoring upon each of the sites. Elements of the monitoring program should include:

(a) Pre-discharge hydrology and water quality.
(b) Selection of sites and placement of sampling wells and instruments.
(c) Periodic taking of samples and analyses by the operator.
(d) Reports by operator to agency.
(e) Periodic tests by agency.

3.2.1.6 Pollution of Ground Water

Groundwater pollution, once it occurs, is very persistent, can be highly hazardous in the case of toxic wastes, and will adversely affect water uses. What does the regulatory agency (either a water quality board, the Health Department, or State Environmental Protection Department) do, should groundwater pollution be detected at a land disposal area? The agency should have remedial authority under state and local law. It should be able to move against the site operator or, if that is not possible, to take necessary remedial action itself, since promptness may be required for the protection of water supplies. There may be a need to intensify sampling efforts, including construction of additional monitoring wells to trace the course of the pollution; there may be need to study the resulting data and issue warning reports to users of ground water, and there may be need to find and plan substitute water supplies for affected parties. It is even conceivable that the polluted groundwaters may have to be extracted and treated to remove pollutants, which could be a large and costly undertaking.

The law should authorize the regulatory agency to require the operator to carry out studies and remedial action or, that not being possible, to have the work performed with provision made to collect the cost of the work from the operator. At the same time, the law should specify that the operator is vulnerable to civil and criminal penalty for polluting the state's waters and that the aggreived parties may collect damages.

3.2.2 Need for Control of Land Used for Disposal Sites

3.2.2.1 Variances and the Grandfather Clause

Economic and geographic realities will lead to numerous compromises between that which the planner knows is required, and that which is possible to attain. To prevent multiple uses developing for the existing non-conforming private disposal sites, the variance should specify both the effluent limitations (by quantity) and the specific persons entitled to make use of the facility. Each variance must be reviewed, at least annually, to establish its potential for water quality degradation. A definite time limit should be established for discontinuance of the non-conforming disposal practice, even if it must be extended upon showing of good cause.

3.2.2.2 Control of Land After Use as a Hazardous Waste Disposal Area

The completely full hazardous waste disposal site is not as amenable to future use as, for example, the completely full sanitary landfill for ordinary wastes. A regulatory agency should be granted authority to:

(a) Specify procedures for the proper manner of closing a site to assure that it presents no future hazard, e.g. deep burial by extra layers of an engineered fill material as final cover, fencing, posting and making appropriate notations on title records on file with the county recorder.

(b) Require owner/operator to continue monitoring after closure, since threat to groundwater will remain for many years.

(c) Carry on its own supplemental monitoring program.

(d) Prohibit any further use of the land occupied by the site or specify what uses may or may not be made after different periods of time have elapsed.

(e) Control of material that may be carried off the site for disposition elsewhere, in the event that use is to be made of the site after such removal of toxic substances.

(f) Carry out remedial actions, as above, in the event of ground water contamination.

To avoid the need for reliance upon the common law tort remedy, which in most jurisdictions would provide for holding the site operator "strictly liable" for damages to others, resulting from the presence of the disposal activity on his land, the statute should clearly fix responsibility to assure that proper protective measures are taken to safeguard water quality after the completion of disposal operations (as does the California Administrative Code §2535(c)).

3.2.2.3 Conservation and Utilization of Impervious Bottom Sites

Residual waste disposal sites that have satisfactory permeability characteristics are usually difficult to find. Consequently, approved sites should be considered to have high value and should be protected against overutilization for disposal of other types of waste material, i.e. household solid wastes, inert construction wastes, etc. Without such protection, it is conceivable that new or established impervious bottom residual waste disposal sites will have to be terminated long before the end of an otherwise useful life as a toxic and hazardous waste disposal area.

The regulatory agency should be granted authority to restrict the types of material that may be placed in an approved residual waste disposal site to those specific residual wastes requiring such special disposition. A volumetric ratio of solid to liquid wastes should also be specified.

3.2.2.4 Inventory of Potential Residual Waste Disposal Sites

Selection of a satisfactory disposal site involves examination of a number of technical parameters through a somewhat complicated analytical process. Not every industrial plant or landfill operator is willing to spend the money to search out, identify and investigate potentially satisfactory sites prior to disposing of residual wastes on the land. This leads to the conclusion that promiscuous dumping will continue unless a regional or state agency takes the lead in the identification of satisfactory land disposal areas throughout its jurisdiction.

As a first step, a regional or statewide water quality or waste management agency should be authorized and funded to conduct reconaissance level studies, resulting in establishment of an inventory of apparently satisfactory sites. The study should encompass the existing and projected industrial land uses in the region in order to relate waste sources to disposal locations, as well as the usual individual site parameters.

After the initial reconaissance, two separate courses of action may be taken:

(a) A statewide agency does in-depth investigation of site(s) when use is proposed, prior to issuance of permit, or

(b) person proposing to operate the site does the investigation as part of an application procedure.

Appropriate authorization should be granted to the regulatory agency to enable it to conduct the in-depth study or to see that the study is properly carried out by another party before site use begins. There should also be legislative provisions (for ecological zoning) at both state and local level, to empower a regulatory agency to exercise a reasonable amount of control over land uses in the vicinity of future disposal areas in its inventory. Without "Buffer Zones" impervious sites may be consumed, or otherwise encroached upon for other purposes, and they will be lost to the use for which they may be most valuable.

3.2.3 Waste Piles and Tailing Drainage

Assuming the 208 planning study will develop an inventory of existing and potential waste pile drainage and mine tailing drainage locations, this could lead to the identification of existing or threatened effects upon surface and groundwater quality. Thus, guidance can be given to management agencies, and to the owners of such waste piles, regarding "best management practices" to prevent such drainage from reaching water supplies. Regulatory agencies should, therefore be authorized by law to conduct inspections of yard and mine tailings drainage and monitoring data to formulate plans for the prevention and control of run off, and to disseminate such information to indivdual owners and to other public agencies that will be affected thereby.

3.2.4 Industrial Wastes, Control of Sources & Disposition

3.2.4.1 Inventory of Waste Loads

A prerequisite for an industrial residual waste plan is an accurate estimate of all industrial wastes produced in specific areas of the region. Secondly, the present disposal practices of the region's industrial operations must be determined and documented. An estimate should also be obtained as to the quantity of such waste that is currently disposed of outside of this area. With this information, alternative plans for the effective treatment or disposal of these wastes may be developed and evaluated.

The inventory of industrial waste streams in the region should produce the tons or gallons per year of each of the following classes of waste. Effective reuse and disposal plans will also require the location of the source of the major portion of each of these groups of wastes:

(a) Toxic inorganics, heavy metals;

(b) Toxic organics;

(c) Oils, oily wastes:
  Industrial
  Motor Oil
  Oil field, refinery and transportation residues

(d) Solvents, volatile organics

(e) Acids, alkalies, brines

3.2.4.2 Control Strategy for Industrial Wastes

After an inventory of waste loading and present site usage is completed, a logical approach to solving the problem of industrial wastes, much of which is currently disposed of into the public sewer or onto private land, is embodied in the following six step procedure:

(1) The adoption and stringent enforcement of rules for discharges of liquid hazardous wastes.

(2) Acquisition and development of a "safe" interim landfill site for the immediate acceptance of the major portion of untreated liquid type hazardous wastes.

(3) The design and initiation of a waste exchange or reuse program to encourage the conservation of organic and inorganic chemicals.

(4) The sequential construction and operation of a modular central treatment plant; first for the largest bulk of liquid hazardous wastes (the heavy metals), followed by the sequentially named groups listed above.

(5) Development of safe sites adequate to receive long term solid and liquid waste residues from these treatment facilities.

(6) Development of reuse incentives and disposal controls to assure proper disposition of industrial, hazardous waste streams.

3.2.4.3 Tank Cleaning Wastes

Tank cleaning wastes can originate in specific industrial operations, at ship terminals and Naval activities, in railroad yards, in truck terminals and in gas storage plants. In many cases, the wastes are hauled to a land site for disposal as residual wastes. Only sites duly approved as hazardous wastes sites should be used.

In areas with such activities, the 208 planning agencies would be well advised to inventory all potential and existing tank cleaning operations in their region. A management agency can then set up guidelines for disposal and to notify all parties with legitimate interests.

Encouragement should be given to reclaiming the hydro-carbon content as fuel or use in new petro or petro-chemical products. Tax write-offs and or government certified bonds to finance new facilities to reclaim these wastes, along with preferential treatment by government purchasing activities, would be appropriate subjects for legislation at the state level.

3.2.4.4 Used Motor Oil

Used motor oil is a particularly troublesome substance to deal with in a municipal sewage plant and may cause water problems when placed in a landfill. It is also a prime example of a reusable natural resource. The region needs a combination of iaws that: (1) prohibit its discharge into sewers or on the land; (2) repeal existing branding requirements that discriminate against re-refined oil in competition with new oil; and (3) passage of State and local regulations that give re-refined oil a competitive edge in the market place by specifying that governments will purchase re-refined oil. The above measure would go far to remove this source of pollution, particularly as it affects sewage treatment plants. (3-16).

The encouragement of full recovery and re-use of other residual oils, such as that left in the bottom of "empty tanks" - both land and water borne (railway and tank truck) and tanker type vessels (which now pump the residue overborad, outside the 50 mile limit) could also be accomplished by legislation - again, by prohibiting dumping and offering to buy the processed residual to fill State and local energy needs. (3-17).

3.2.5 Dredged Material Disposal

3.2.5.1 Pollution of Ground Waters

In the coastal, riverine and lacousterine areas, the land use or other appropriate planning agencies should determine which upland sites are, or are not acceptable for deposition of spoil on the land and this should be done in advance of any dredging permit or other project authorization. One obvious reason is protection of wetlands. Another is protection of aquifers, which could be polluted by the salt water drainage from the spoil or by polluting materials (pesticides, nutrients and toxic organics) in the spoil. In the same areas of the country, fresh water streams could also be polluted by saline surface runoff from dredge fill operations.

3.2.5.2 Beneficial Use of Dredged Material

It should be noted that dredge material has many beneficial uses, and that advance planning is necessary to assure that a beneficial use is made whenever possible. The U.S. Army Corps of Engineers is well qualified to provide assistance in finding such beneficial use. Even low quality dredged material mixed with coarser material might be of value as "cover" lifts at sanitary landfill sites. (3-18)

3.2.6 Use or Disposal of Sewage Sludge - Municipal

3.2.6.1 Application Upon the Land

Application of digested sludge, both dry and in liquid form upon the land, is currently receiving increasing attention as an acceptable and beneficial method of conservation. The 208 planning agency should take cognizance of the potential for any such activity within its region. Recognizing that application of sludge will tend to add nitrogen, salts and possibly heavy metals to the groundwaters, the 208 agency, either alone or in concert with State or regional water quality control and Public Health Agency should establish an inventory of land areas that are suitable for and could be enhanced by properly applied sludge. The inventory of available, safe sites should be reviewed and coordinated with the agencies involved in operating or regulating the sludge producing facilities.

3.2.6.2 Safe Application Rates

The amount of sludge material that may safely be applied to the land will vary depending upon soil conditions, rainfall, the rate at which a given crop can assimilate nutrients, and the amount of heavy metals and other substances present in the sludge. Some State Health Departments have specified safe rates under different conditions and other states treat land application as experimental, permitting it under a program of monitoring and reporting of results to the State. Where land spreading practices are not common, the experimental (permit) approach may assist in gaining public acceptance for such a program (3-19).

3.2.6.3 Sludge Ash

Where sludge incineration (to reduce volume) is practiced, disposal of the char or ashes, which may have significant traces of heavy metals, remains a problem. Regulations for the control of disposal of this material may be encompassed in hazardous waste disposal rules, if the heavy metal content is high. If the heavy metal content is negligible, existing definitions of solid waste may relegate this material to a special landfill area.

3.2.6.4 Control of Nuisance

Since liquid sludge, if not properly preprocessed, can be the source of strong odors when deposited upon the land, the waste management or regulatory agencies should be authorized to promulgate and enforce standards of stability for sludges so discharged.

3.2.7 Agricultural Wastes

3.2.7.1. Pesticide Containers

This subject was covered under the discussion of hazardous wastes. The regulatory agency should have authority to continually inventory levels of this type of waste in its region and to insure that the bags and/or waste water are being taken to an approved disposal site. Moreover, the regulatory agency should have the authority to maintain an overview of pesticide usage within its region and the ensuing impact, if any, upon water quality.

3.2.7.2 Organic Wastes

Poor storage and disposal practices for organic agricultural wastes such as manure, vines, silo drainage, can lead to serious problems with groundwater nitrogen, eutrophication and anoxia of surface waters, increased salinity of ground and surface waters, odors, flies, etc. In appropriate areas, priority should be given by the 208 planning agency to an inventory of all sources of agricultural wastes within its region; to determine specific waste loads; to evaluate known effects upon surface and ground waters, and to project further effects. The planning agency will be expected to define acceptable agricultural waste handling and disposal practices, where these constitute a threat to water quality within its region. It should also include this aspect of waste management in the public participation program for promotion of these practices through public education.

The planning agency should also determine whether or not there is need for organic agricultural waste disposal sites in its region and to locate and protect such sites if the need is found.

Many states have developed comprehensive programs regulating these aspects of agricultural waste, and enabling legislation is probably available to obtain new regulations that may be required.

3.2.8 Construction & Demolition Wastes

For the most part, construction waste is relatively innocuous, consisting of broken pavement, stone, bricks, wood, plaster, dirt, asphalt tile and shingles, etc. Its major problems are dust, unsightliness, smoke and rodent harborage. Construction waste can unnecessarily consume area in municipal solid waste sites and particularly in hazardous and toxic waste sites. On the other hand, a place must be provided for the deposit of the inorganic fill fraction and efforts should be made to assure consumption of this residual as useful material.

The 208 planning agency should include estimates of construction and demolition waste volumes in its planning and provide the locations of proper disposal sites to generators of such wastes.

3.2.9 Control of Transportation of Residual Wastes

3.2.9.1 Waste Transport Vehicles

Transportation of residual wastes in equipment that is not suitable for the job or in defective equipment can be highly dangerous, e.g. acid leakage or sludge spills on highways. Specifications for the equipment and procedures for its use should be reviewed, and maintained at the state level because of mobility of the equipment. Where states have thus far failed to provide regulations specific to this problem, the Motor Vehicle or Health Department should have some authority to do so. The State should have an agency to set standards, which would be applied against the source of the wastes. For example, if a piece of transportation equipment fails to meet the standards, the waste producer would be prohibited from placing his wastes aboard it. (3-20)

3.2.9.2. Routing Over the Road

Routing of intransit wastes of either the special, hazardous or toxic classes, should be controlled in such a manner that a traffic accident or equipment malfunction (including leakage) will not endanger water supplies in the area. Permissable routing should also take into account direct hazards to large numbers of people (downtown areas) and particularly children (schools should be avoided). Movement of particularly hazardous wastes may also be restricted to daylight hours that do not coincide with peak traffic congestion, as a further effort to reduce the probability of accidents.

Hauling permits should prohibit use of roads in vicinity of reservoirs, rivers and streams. Trucks bearing hazardous or toxic waste should be required to display an appropriate sign on front, rear and both sides as a warning to other vehicles and to alert law enforcement patrol cars, in the event a truck uses a prohibited route.

3.2.9.3 Clean Up of Spills - Emergency Procedures

Accidents in transporting hazardous wastes can lead to serious problems of toxic impact on the public and on wildlife, pollution of ground and surface waters, air pollution, fire, explosion, etc. (These problems can also stem from illicit dumping.) Here, also, the planning agency should encourage waste haulers and management agencies to work out contingency plans with highway departments, fire and police departments, hospitals and similar groups to minimize the adverse consequences of accidental dumping of hazardous wastes. Preventive action in the form of licensing programs and generating awareness among waste producers, transporters, and site operators, as already mentioned, should help minimize such episodes.

3.2.10 Litter

Litter is a significant insult to our physical environment in terms of the BOD loads imposed, either on the sewage treatment works (if storm runoff is treated) or on the receiving waters after each heavy rain.

Structural solutions to the problem require either the building of larger treatment plants to receive the combined flow from sanitary and storm sewers or the investing in new separate storm sewers. These new sewers would collect all runoff, or just the first flush from each storm, for later impoundment and treatment in either a separate storm-water treatment plant or in a combined treatment plant. Each of the above is a very costly addition.

One of the non-structural solutions is to clean up the streets and roadside trash and clean out sediment basins in storm drainage mains at regular intervals. Environmentally safe disposal of street sweepings and highway trash is not a difficult problem, but the collection segment is labor intensive, and therefore very expensive

A litter law and small animal control law with teeth (say up to $500 fine per violation), that is vigorously enforced and with proceeds dedicated in advance to litter clean up, is an example of the source reduction strategy at work. (3-21)

3.2.11 Beverage Container Deposit Laws

A law requiring a deposit on all of the types of containers that may be used for consumables, which insures the return for re-use or recycling of the container is a multi-purpose solution. It reduces litter, reduces total waste loading to be disposed of, and increases the useful life of the container with a con-committant reduction in the drain on our non-replaceable raw material and energy resources. The "Oregon" type of beverage container deposit law is an excellent example.

The EPA, Office of Research and Monitoring sponsored an exhaustive study of the beverage container problem, in 1972. (3-22) This report examines the technical, environmental and economic aspects of the mandatory container return deposit versus a tax on non-returnables that will pay the cost of litter clean-up (while forcing the expanded use of returnables). A complete list of the federal, state and local laws that were pending in the legislative bodies of the country, as of June 1971, is provided as an appendix to this EPA report.

Since both the Vermont minimum deposit act (Vermont Statutes, Title 10 §1521-1525) and the Oregon "Bottle Bill" (Oregon Revised Statutes, §459.810-459.890) have survived constitutional challenges, more states, cities and counties will consider this option to the continuous litter pick-up costs they currently face. 571 P.2d 691, (Ore. App. 173) review denied by Oregon Supreme Court (1974).

3.3 The Need for Legislative Provisions to Aid in Reuse and Recovery of Residual Waste

The problems associated with recovery of residual wastes, both economic and technological, are the subject of numerous private, State and Federal studies and reports. That there "ought to be a law," most of the experts can agree, but as to what law or laws can cope with the formidable economic constraints that presently divert most wastes to dumps or incinerators, seem to be subject to experimentation for some time to come.

3.3.1 A National Survey of Resource Recovery

Chapter 4D of the Report of the National Commission on Materials Policy (June 1973), draws from the best sources of information available to the Federal government, to provide a succinct statement of the problem. A small section of Chapter 4D is condensed and presented below to provide an indication as to why land filling is still preferred over conservation and how a regional approach might make conservation more viable. (References from the Report have been renumbered).

> **The Economics, Technology, and Organization for Resource Recovery**
>
> Economic factors determine whether a material is recycled, shunted into the waste stream, or left where it stands. Recycling proceeds through an agreement by two different agents in the materials system: the owner of obsolete goods and a recycler who might be able to put the goods to use. Both must see an advantage in the transaction.
>
> Usually transactions are made by scrap dealers who purchase waste materials and process them. Sellers (or givers-away) might be urban waste processing plants, machine shops, or private citizens. Buyers include papermills, secondary smelters and steel mills.
>
> The saying in the industry is that scrap is bought, not sold; it is a buyer's market. Materials producers will buy and use high-quality scrap if the cost is competitive with costs of virgin materials. The cost of upgrading most urban waste to an acceptable quality prices it out of the market. That is the essential challenge.
>
> The remedies lie in economics, technology, and comprehensive organization for resource recovery. The fundamental requirement, however, is to create incentives for industrial materials buyers to use more secondary materials in the interest of efficiency in use of national resources.
>
> This situation could be brought about by two activities: actions to create a demand for secondary materials, and actions to create a supply of secondary materials of such quality and at such a price that they would arouse demand.

In today's market, demand offers the better incentive. Often voluntary recycling centers can find no markets for the material they collect. It is as if they were pushing on a string. Such material will move best when demand pulls them along.

Municipal solid wastes have not been recycled in the past because disposal in readily available dumping sites was more economical. The patterns and traditions that developed as a result have made it more difficult to close the materials system, even though today the economics begin to favor a closed system.

Some of the major options of the sanitation industry result in dumping, others in recycling. The options are: (3-23)

(a) Incineration: This is outright burning of wastes, without energy recovery. Its cost has risen with the public's increased concern about air pollution.

(b) Sanitary landfill: This is disposal and burial of wastes in the earth. As land around urban areas has become scarce, waste handling and land acquisition costs have raised the total cost of this option.

(c) Skimming: This involves separation of several types of wastes at the source and separate collection followed by recycling of such components as paper, glass, and metal.

(d) Materials recovery: This involves an aggregate collection, as with incineration and landfill, followed by material recovery for recycling by the use of special equipment that separates and sorts the collected wastes.

(e) Fuel recovery: This uses collected wastes as an energy source in power plants or industrial furnaces.

Studies by the Environmental Protection Agency of the different approaches show that skimming, when well executed, is most economical. Close-in sanitary landfill is the cheapest option after skimming, followed by fuel recovery, materials recovery, remote landfill, and incineration. (3 -23a)

But cheap landfill is not always an option; some cities are paying more for disposal than the estimated average costs for materials or fuel recovery, \$4.77 vs. \$2.71, respectively. (3-24) For instance, estimated disposal costs in Philadelphia and San Francisco are as high as \$8 per ton.

Few municipalities opt for resource recovery as opposed to dumping for three reasons:

(1) Inadequate markets for recovered materials. Municipal officials cannot rely on finding buyers for secondary materials when virgin materials are favored. As a marginal commodity, scrap is subject to wide swings in demand and price. If officials are to have confidence in recovery as an economical option for waste management, a steady, reliable outlet for the recovered materials is essential. If demand for the product drops, the municipality again has a mountain of expensive wastes on its hands.

(2) Capital costs. Given the volatility of the secondary materials market, municipalities or private companies are reluctant to commit themselves to invest heavily in the sophisticated industrial technology required for resource recovery. Given the uncertainties, recovery seems not to justify the substantial investment required.

(3) Tradition and structure. Sanitation officials have not been concerned with recovery of resources in the past. Their mission traditionally has been to abate waste as a public nuisance or threat to health, not to treat waste as a resource. Therefore, sanitary landfill, which required minimal changes in goals and operating procedures, was adopted where open dumping became impossible.

Energy recovery is the target of opportunity for municipal government today. It is cheap, conservative of resources, and requires only new technology for its introduction, whereas skimming would require profound changes in consumer habits. In Europe, virtually all new refuse-burning incineration plants are designed for heat recovery. In the United States, however, only about ten such incinerators are in use. The mixed organic fraction of community waste often has an energy content one-half that of bituminous coal. By mixing this fraction of the solid waste with coal or fuel oil it is possible to reduce both the volume of solid waste that must be disposed and the quantity of other fuel needed by power plants. (3-25).

Use of solid waste for this purpose would require conversion of present power plants. The solid waste received would have to be separated, sized and evaluated for heating value. A proper amount of coal or fuel oil then added would supply the required heat. Any increased capital and operational costs for the power plant could be offset by disposal cost savings.

Taxes Should Favor Resource Recovery

Over the years, the Federal government has developed tax policies that encourage extractive industries. Capital gains treatment for profits, depreciation schedules, depletion allowances, and other tax write-offs for extractive industries favor use of virgin materials over secondary materials because these incentives to a degree are reflected in the price of the end product. A staff study for the Joint Economic Committee places the amount of Federal tax allowances for development of natural resources at $1.45 billion in 1971. These allowances are incentives to use these resources in preference to secondary materials. (3-26).

The National Commission on Materials Policy Concluded That:

...before cities can realize the potential of resource recovery, they must change their attitudes toward solid waste and the institutional structures that deal with it. Many will decide that private entrepeneurs offer the most efficient mechanism for resource recovery and will enter into long-term contracts for this service.

...not all cities will find that resource recovery is the most economical option; each municipality has its own problems and perspective. Some may wish to enter into agreements with other local governments to capture economies of scale unavailable to them individually. State governments should encourage such regional approaches through solid waste regulatory programs.

3.3.2 State Action to Stimulate Reuse and Recovery of Materials

The previous section presented an overview of the problem from the perspective of the Federal Government. For the most part, initiatives must come from state and regional entities.

The following paragraphs deal with related problems, for which the states are developing different legislative solutions.

3.3.2.1 Tax Abatement as an Incentive to Reuse

Many states are reluctant to risk disturbing the delicate mechanism we call free market place which responds to supply and demand in ways that are not always understood. It is argued in some quarters that tax incentives for reuse of material may not be necessary because prices of virgin materials will rise as they become scarce, thus encouraging the use of recycled materials even in the absence of tax incentives. In addition, a substantial amount of recycling is already occurring, or being planned, because of rising prices for recyclables. Consequently, the major benefit of a tax reduction for recycling industries would accrue to investment that would have taken place in the absence of a tax reduction. Little additional investment in recycling industries would be encouraged by such a tax reduction. Although tax policies permitting rapid amortization of recycling facilities would encourage the entry of private capital into the recycling industry by reducing capital costs, existing industrial waste recycling facilities would receive windfall benefits from such a provision. (3-27).

Perhaps because of the fear of "windfall" profits, or a belief that each business venture should pay its own way, provisions for tax deductions on pollution control facilities are often limited to "new" equipment and then only to the extent that the investment is not self amortizing from the value of the materials reclaimed.

Arizona permits the cities and counties, through pollution control corporations, to acquire tax exempt lands and pollution control equipment that may then be leased. This includes existing or new equipment and appears to cover resource recovery facilities. (3-28)

Article 3 of California's Solid Waste Management and Resource Recovery Act calls for the formulation of a broad program to stimulate resource recovery

The recently formed California Pollution Control Financing Authority certifies tax exempt bonds, the proceeds of which are available as loans to private industry and municipal governments. (3-29)

3.3.2.2 Underwriting Actual Losses in Commercial Recycling Operation

Another approach to subsidy without much danger of a windfall, is to pay a private materials reclaimer the difference between the price he actually receives for reclaimed materials and the price he would have to receive in order to remain in business. A cost/benefits analysis would have to be made to determine the maximum differential that the government can afford to pay, but it is quite likely that the total value to the community of the reduced waste load, the jobs provided by the reclaimer and the prospect of such an operation becoming self-sustaining in the future will justify a significant direct subsidy to private operators during their start-up cycle.

Minnesota has made provision for support of such marginal operations as they pertain to the reclamation of abandoned automobiles. The state officials indicate that it is considered to be a good investment. The same approach would work on a regional basis to reclaim the materials in rubber tires and many other waste products. (3-30)

3.3.2.3 Making Municipal Solid Waste, Including Shredded Wood, Available to Utility Companies

Where a continuous supply of combustible waste materials can be assured, the promise of free, or low cost wastes, for consumption in boilers that are modified to burn this material, may provide an adequate incentive to invest in the conversion process. Connecticut and a number of other states (with Federal assistance) are implementing such programs on a pilot basis.

3.3.2.4 Removal of Discriminating Labeling or Advertising Constraints on Recycled Products

California has recently enacted a law which removes the previous labeling restriction that included a large legend, "Made from Used Oil." The California bill applies only to oil that is re-refined to meet S.A.E. standards and is sold within the state. The Federal Trade Commission still requires a legend to be placed on the containers of re-refined oil that moves in interstate commerce.

The new California law also deleted previous requirements which kept the re-refined oil on separate display racks, and subjected the dealers to the maintenance of separate records for the sale and storage of the reclaimed product. (3-31).

3.3.2.5 Remove Discriminatory Freight Rates on Recyclable Materials

A number of states have acted to review the intrastate rate structure, as it applies to secondary materials. This appears to be within the power of every state, but will, of course, only have an impact if there is both a supply and a demand for a particular waste material within that state.

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(3-29) California Health & Welfare Code, Division 27, §§39600-39637, (1972).

(3-30) Minnesota Statute, Chapter 168B, Abandoned Motor Vehicles, §§168B.10 (1971).

(3-31) *Supra* reference (3-16).

CHAPTER IV

A COMPREHENSIVE MODEL LAW FOR RESIDUAL WASTE MANAGEMENT, DISPOSAL & RESOURCE CONSERVATION

The purpose of this model statute is to provide areawide waste management planners and waste management operating agencies with examples of legislative and regulatory provisions that are adopted by, and appear to be effective in other jurisdictions. This model may also be useful to legislative draftsmen working on problems of residual waste.

As a model it is not expected to be universally applicable, nor to cover every circumstance and situation. The example of statutes presented herein will provide assistance in formulating specific language required to remedy local and areawide situations similar to those for which other jurisdictions have enacted the statutes reflected in this model.

This statutory scheme should only be used with caution and only after having determined its compatibility with existing regulations, statues, policies, and waste management institutions. Constitutional considerations, both federal and state, may play an important role in the inclusion or exclusion of specific sections of this model when planning new legislation.

Sections of this model are each comprised of examples taken from the Council of State Governments' model and from actual provisions of states' statutes and regulations. Generally, the first paragraph under each major heading is taken from the Council of State Governments' model, which is in accord with similar provisions in one or more of the states. Additional sections are excerpted from state laws and regulations found to be representative or the most comprehensive provisions. The letters to the right of the provisions indicate the state's law or regulation, indexed in the reference section to this chapter, from which the model section was selected, (e.g. CA(a): California statute found in the reference section under California, (a).)

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(1) Fines and Imprisonment

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XVII(C) Regulation of Transportation of Residual Wastes

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- (1) Prevention of Water Pollution
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(Alternative Provision for (1) Above)

XVII(K) Litter Control Considerations

(Consideration Regarding Provision)

XVII(L) Summary of Criteria for Land Application of Sludge to Farm Land

(Recommendations Taken from The Illinois Advisory Committee on Sludge and Wastewater Utilization on Agricultural Land, February 1975).

XVIII REPEALER

XIX SEVERABILITY

XX SAVINGS CLAUSE

XXI EFFECTIVE DATE

STATE RESIDUAL WASTE MANAGEMENT AND RESOURCE RECOVERY ACT

An Act providing for the planning, management, and conservation of residual waste. Residual waste is defined as that solid, liquid, or sludge substances resulting from man's activities in the urban, agricultural, industrial, and mining environment not discharged to water after collection and necessary treatment. These wastes include, but are not limited to:

- Sludges resulting from water and domestic wastewater treatment, industrial sludges, utility plant sludges, and mining sludges;
- Solids resulting from industrial and agricultural process waste materials and from non-process industrial and commercial wastes (e.g. demolition wastes, mine tailings, incinerator residues, dredge spoil, and agricultural waste like crop residues, feedlot wastes and pesticide containers), **residual and commercial** solid waste; and
- Liquids resulting from industrial side streams and from agricultural product processing.

SECTION I
SHORT TITLE

Model(a)

This Act may be cited as the "Residual Waste Management and Resource Recovery Incentives Act of (1976).

SECTION II
DECLARATION OF POLICY
(Findings of Necessity, Purpose, Applicability, Intent of Legislature)

Model(a)

(1) The Legislature of the State finds:

(a) that the people of this state have a constitutional right to a clean environment and the costs of maintaining a clean environment through the efficient environmentally acceptable management of residual waste should be borne by those who use such services;

(b) that municipalities have serious economic, management, and technical problems in the management of residual waste resulting from residential, commercial, industrial, agricultural and other activities carried on in such jurisdictions;

(c) that inefficient and improper methods of managing residual waste create serious hazards to the public health, cause pollution of air and water resources, cause accidents and hazards, and increase rodent and insect vectors of disease, and have an adverse effect on land values, create public nuisances, and otherwise interfere with community life and development;

(d) that while the management of residual waste is the responsibility of each municipality, problems of residual waste management have become a matter statewide in scope and in concern and necessitate state action through technical assistance and leadership in the application of new improved methods and processes to reduce the amount of residual waste and unsalvageable materials and to promote environmentally acceptable and economical residual waste management;

(e) that the continuing technological progress and improvements in methods of manufacturing, packaging and marketing of consumer products have resulted in an ever mounting increase, and in a change in the characteristics, of the mass of material discarded by the purchaser of such products;

(f) that the economic and population growth of our State, and the improvements in the standard of living enjoyed by our population, have required increased industrial production together with related commercial and agricultural operations to meet our needs, which have resulted in a rising tide of useless, unwanted, and discarded materials; and

(g) that the failure or inability to economically recover material and energy resources from residual waste results in the unnecessary waste and depletion of our natural resources.

(2) It is hereby declared to be the purposes of this Act to:

(a) plan for and regulate the storage, collection, transportation, separation, processing and disposal of residual waste in order to protect the public safety, health, and welfare and to enhance the environment for the people of the State;

(b) establish and maintain a cooperative state program of areawide planning and technical assistance for residual waste management;

(c) provide the authority to, and require that municipalities cooperate to plan and provide efficient, environmentally acceptable residual waste management;

(d) require review of the design, and issue permits, for the operation of residual waste management activities;

(e) promote, through the removal of economic disincentives and by providing economic incentives, the application of resource recovery systems, which preserve and enhance the quality of air, water and land resources; and

(f) promote and assist in the development of markets for recovered and recycled materials by changing the State commerce, procurement, and taxation statutes and policies.

SECTION III
DEFINITIONS

(For a complete listing of terms and definitions, see the Glossary of Residual Waste Terms in Appendix A.)

SECTION IV
STATE AGENCY AUTHORITY/POWERS/DUTIES

IV(A) Administration of the Act

Model(a)

(1) The Department of __________ shall have the responsibility for the administration and enforcement of this Act. It shall have the power and its duties shall be to:

(a) administer the State residual waste management program pursuant to provisions of this Act;
(b) provide technical assistance to municipalities and areawide agencies, and cooperate with appropriate federal agencies and private organizations in carrying out the duties under this Act;
(c) encourage and recommend procedures for the utilization of self-financing of residual waste management systems and inter-municipal agencies in accomplishing the desired objective of this Act;
(d) promote the planning and application of resource recovery systems which preserve and enhance the quality of air, water, and land resources;
(e) serve as the official State representative for all purposes of the Federal Solid Waste Disposal Act, (P.L. 91-512), or as subsequently amended, and for the purpose of such other state or federal legislation as has been or may hereafter be enacted to assist in the management of residual waste.

SUPPLEMENTARY PROVISIONS

CO(b)

(1) There is hereby established an agency to regulate the residual waste management system.

(a) There is hereby established, within the office of the Governor, a residual waste management agency. The agency shall consist of nine members who shall be appointed in the manner and shall serve for terms as set forth in this section.
(b) Five members shall be appointed by the Governor, one from each congressional district, and no more than three members shall be from any one major political party. Members appointed under this paragraph(b) shall be for five years. Any vacancies shall be filled by appointment of the Governor for the unexpired term.
(c) The Governor shall also appoint four members who shall serve at his pleasure.

(2) The agency enumerated under this Act is vested with authority to:

(a) It shall utilize its own staff for services in the performance of its duties.
(b) The departments and agencies of state and local government shall make available to the agency such data and information as are necessary for it to perform its duties.
(c) The agency may receive and utilize funds from federal or other governmental agencies and grants and gifts from any other sources.
(d) It shall adopt rules for its conduct and maintain a public record of its activities, accomplishments and recommendations.

(Alternative Establishment of Agency)

(1) There is established in the Executive Branch of the State Government, an agency to be known as the Environmental Protection Agency. IL(a)

(a) This agency shall be under the supervision and direction of the Director, who shall be appointed by the Governor with the advice and consent of the Senate.

(b) The Director, in accord with the Personnel Code, shall employ and direct such personnel, and shall provide for such laboratory and other facilities, as may be necessary to carry out the purposes of this Act. In addition, the Director may by agreement secure such services as he may deem necessary from any other Department, agency, or unit of the State Government, and may employ and compensate such consultants and technical assistants as may be required.

(2) The Agency shall have the duties to:

(a) Collect and disseminate such information, acquire such technical data, and conduct such experiments as may be required to carry out the purposes of the Act. This includes ascertaining the quantity and nature of discharges from any contaminant source and data on those sources, and the operating and arranging for the operation of devices for the monitoring of environmental quality;

(b) Conduct a program of continuing surveillance and of regular or periodic inspection of actual or potential contaminant sources of public water supplies and of refuse disposal sites.

(c) Enter at all reasonable times upon any private or public property for the purpose of inspecting and investigating to ascertain possible violations of the Act or of regulations thereunder, or of permits or terms or conditions thereof, in accordance with constitutional limitations;

(d) Investigate violations of this Act or of regulations adopted thereunder, or of permits or terms or conditions thereof, to prepare and present enforcement cases and to take such summary enforcement action as is provided for by this Act;

(e) Administer, in accordance with Title X of this Act, such permit and certification systems as may be established by this Act or by regulations adopted thereunder;

(f) Require the submission of complete plans and specifications from any applicant for a permit required by this Act or by regulations thereunder;

(g) Prescribe reasonable fees for permits required pursuant to this Act;

(h) Make recommendations for the adoption of regulations;

(i) Represent the State in any and all matters pertaining to plans, procedures, or negotiations for interstate compacts or other governmental arrangements relating to environmental protection.

(3) State residual waste management and resource recovery policy shall consist of policies, plans, and programs to be established pursuant to Section II of this Act. CA(a)

No provision of this title or any ruling made pursuant thereto is a limitation on any of the following:

(a) The power of a city, county, city and county, or district to adopt and enforce regulations, not in conflict therewith, imposing considerations, restrictions, or limitations with respect to handling the disposal of residual wastes.

(2) The agency shall advise and assist industry and business within the state in providing and developing packaging and containers consistent with environmental policies of the State. MN(b)

(a) The agency shall review new or revised packages or containers. The agency shall review innovations including, but not limited to, changes in constituent materials or combinations thereof and changes in closures. When the agency determines that any new or revised package or container would constitute a residual waste disposal problem or be inconsistant with state environmental policies, the manufacturer of the product shall withdraw it from further consideration until such time as the manufacturer shall resubmit such product to the agency, or the agency may, by order made after notice and hearing, prohibit the sale of the package or container in the state. Any such prohibition shall continue in effect until revoked by the agency.

(b) The agency shall adopt guidelines identifying the types of containers and packaging that are subject to its review. Any person may submit to the agency a sample of a package or container for agency review. If the agency fails to issue an order prohibiting sale of a package or container within 120 days after the sample was submitted, the agency shall not prohibit it thereafter. The agency may, however, for good cause, order the 120 day period to be extended for an additional period not to exceed 30 days.

(c) The agency's report to the legislature on progress on abatement of land pollution shall be supplemented by annual recommendations concerning problems relating to residual waste generation and suggested remedies, including but not limited to the prohibition of the sale or use of any package or container.

(Alternative)

(1) The agency is to render assistance. The agency and local health departments shall render technical advice and services to owners and operators of residual waste disposal sites and facilities and to municipalities and counties in order to assure that appropriate measure are being taken to protect the public health, safety, and welfare. In addition, the department shall have the duty to coordinate the residual waste program with all other programs within the agency and with the other agencies of State and local government which are concerned with residual waste disposal. *CO(a)*

SECTION V
PLANNING (STATEWIDE, AREAWIDE, LOCAL)

SUPPLEMENTARY PROVISIONS

(1) Governmental entities are required to submit plans. PA(a)

(a) Each municipality shall submit to the agency an officially adopted plan for a residual waste management system, or systems serving areas within its jurisdiction, within two years of the effective date of this section, and shall, from time to time, submit such revisions of said plan as it deems necessary or as the agency may require.

(b) When more than one municipality has authority over an existing or proposed residual waste management system or systems, or any part thereof, the required plan or any revision thereof may be submitted jointly by the municipalities concerned or by an authority or county or by one or more of the municipalities with the concurrence of the others.

(c) Every plan, and any revision thereof, shall delineate areas where residual waste management systems are in existence and areas where the residual waste management systems are planned to be available within a ten-year period.

(d) Every plan shall:

- (i) provide for the orderly extension of residual waste management systems in a manner consistent with the needs and plans of the whole area, and in a manner which will not create pollution of the water or air, nor constitute a public nuisance and shall otherwise provide for the safe and sanitary disposal of residual waste;
- (ii) take into consideration all aspects of planning, zoning, population estimates, engineering and economics so as to delineate with all practicable precision those portions of the area which may reasonably be expected to be served by a residual waste management system within the next ten years as well as those areas where it is not reasonably foreseeable that a residual waste management system will be needed after ten years;
- (iii) take into consideration any existing State plan affecting the development, use and protection of air, water or land resources;
- (iv) set forth a time schedule and proposed methods of financing the development, construction and operation of the planned residual waste management system together with the estimated cost thereof;
- (v) include a provision for periodic revision of the plan; and
- (vi) include such other information as the department shall require.

(e) The plan shall be reviewed by appropriate official planning agencies within a municipality including a planning agency with areawide jurisdiction, if one exists, and the county planning for the area and all such reviews shall be transmitted to the agency with the proposed plan.

(f) The agency is hereby authorized to approve or disapprove plans for residual waste management systems submitted in accordance with this Act. Any plan which has not been disapproved within one year of the date of its submission shall be deemed an approved plan. In case any plan is disapproved, a hearing shall be held thereon before the agency within fifteen days after request therefore is made by the municipality, municipalities, county or authority whose plan is disapproved.

(g) The agency may establish priorities for the time within which plans shall be submitted and may, in appropriate cases, recommend the submission of joint plans.

(h) The agency may institute an action in mandamus in a court of general jurisdiction of the county in which the municipality is located to compel municipalities to submit plans in accordance with this Act and the rules, regulations and procedures of the agency.

(2) Public participation is encouraged. CA(c)

(a) The planning must take into account the need for the public to participate. There shall be public participation during development of the plan. This may be achieved through appointment of a task force or steering committee composed of city and county representatives, citizen groups, or members of the local residual waste industry to assist in developing the plan. Public hearings regarding the plan shall be held by the responsible entities.

(b) The public must be kept informed regarding how the plan operates. The general public shall be kept fully informed through the news media or other suitable means during the development process of the plan in order to instill an awareness of the extent to which residual waste management practices may enhance the environment, protect the public health and reclaim valuable resources.

(3) The plan must be compatible with existing comprehensive plan.

(a) The plan shall be compatible with any general plan and its appropriate elements such as, but not limited to land use, circulation, public service, conservation and open space*.

(b) A plan shall not supersede plans of any local jurisdiction unless there is agreement by the local jurisdiction and the county or counties concerned.

(c) Take into account the comprehensive land use plan of each jurisdiction. WA(a)

**Some states permit new landfills irrespective of existing zoning, other states require conformance to existing zoning.*

SECTION VI
COMPLIANCE/ENFORCEMENT AGENCY

Model(a)

(1) The agency shall have the responsibility to: prepare, adopt, promulgate, modify, repeal and enforce rules and regulations governing residual waste management systems to conserve the air, water and land resources of the State, protect the public health, prevent environmental pollution and public nuisances, establish the procedures for permit application, review and issuance, prepare, issue, modify, revoke and enforce orders, after investigation, inspection, notice and hearing, prohibiting violation of any of the provisions of this Act or of any rules and regulations issued pursuant thereto and requiring the taking of such remedial measures for residual waste management as may be necessary or appropriate to implement or effectuate the provisions and purposes of this Act.

SUPPLEMENTARY PROVISIONS

(1) Action to enforce regulations or orders are authorized by this Act. OR(a)

(a) The agency may take whatever action is appropriate for the enforcement of its regulations or orders.

(b) The Attorney General is similarly empowered to enforce this Act by an action for mandamus, injunction or other appropriate judicial relief. IL(a)

(c) The agency may institute proceedings to enforce compliance with or restrain violations of this Act, or any rule, standard, permit or order adopted, entered or issued pursuant to this Act. OR(a)

- In any civil action brought pursuant to this Act in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it shall not be necessary to allege or prove at any stage of the proceeding that irreparable damage will occur should the temporary restraining order, preliminary injunction, or permanent injunction not be issued, or that the remedy at law is inadequate, and the temporary restraining order, preliminary injunction or permanent injunction shall issue without such allegations and without such proof. CA(h)

(Alternative)

(2) Enforcement powers are established by this Act. OR(a)

(a) The agency may take whatever action is appropriate for the enforcement of its rules or orders.

(b) Whenever a violation creates an emergency which requires immediate action to protect public health, safety or welfare, the agency shall institute a proceeding at law or in equity in the name of the State to restrain the threatened or existing pollution of the air of the State or the waters of the State, the creation of a health or other serious hazard, or the creation of a public nuisance, due to such violation. The agency may act under this section without the necessity of a prior administrative proceeding or hearing and entry of an order, or at any time during an administrative proceeding if a proceeding has been commenced.

(c) At the time of instituting a proceeding under the above section, the agency must file one or more affidavits supporting the relief applied for, together with a show cause order directed to the defendant. On the day the proceeding is instituted or on the day following, the court shall issue the show cause order, requiring the defendant to appear at a time and place specified in the order and to show cause, if any, why the relief applied for should not be granted. The complaint, together with the affidavit and a show cause order, shall be served on the defendant as a summons. The time for the appearance of the defendant may submit counter-affidavits and both parties may submit such additional evidence as may be appropriate. Prior to the trial a temporary restraining order, temporary injunction or abatement order may be entered pending final determination of the matter after a trial on the merits. The hearing on the show cause order shall constitute a trial on the merits of the case. An appeal may be taken in the usual manner, but there shall be no stay of the order of the court on appeal. The agency shall not be required to furnish any bond in such a proceeding.

(2) The agency shall hold investigations; shall make findings; shall issue orders; shall provide notice and judicial review.

(a) Whenever the agency believes that any disposal site or its operation is unsafe, or not in compliance with rules or orders, it may upon its own motion investigate the operation of the disposal site. OR(a)

(b) The agency shall establish and operate a monitoring and surveillance program over all disposal sites or may contract with any qualified public or private agency to do so. Licensees must allow necessary access to the disposal site and to its records, including those required by other public agencies for such program to operate.

(c) If such investigation discloses that a violation may exist, the agency shall issue and serve upon the person complained against a written notice, together with a formal complaint, which shall specify the provision of this law or the rule or regulation or permit or term or condition thereof under which such person is said to be in violation, and a statement of the manner in, and the extent to which such person is said to violate this law or such rule or regulation or permit or term or condition thereof and shall require the person so complained against to answer the charges of such formal complaint at a hearing before the agency. A copy of such notice and complaint shall also be sent to any person that has complained to the agency respecting the respondent within the six months preceding the date of the complaint, and to any person in the county in which the offending activity occurred that has requested notice of enforcement proceedings. IL(a)

(3) Any person may file with the agency a complaint, meeting the requirements of sub-section (a) of this section, against any person allegedly violating this Act or any rule or regulation thereunder or any permit or term or condition thereof. Unless the agency determines that such complaint is suplicitous or frivolous, it shall schedule a hearing.

SECTION VII
OPERATION AND FINANCING OF AREAWIDE PLANS

SUPPLEMENTARY PROVISIONS

(1) The agency is authorized to make, issue and appropriate grants in aid. PA(a)

- (a) The agency is authorized to assist counties, municipalities, and authorities by administering grants to pay up to ____ percent of the costs of preparing official plans for residual waste management systems in accordance with the requirements of this Act and the rules, regulations and standards adopted pursuant to this Act, and for carrying out related studies, surveys, investigations, inquiries, research and analyses.
- (b) All grants shall be made from funds appropriated for this purpose by the legislature.
- (c) Any municipality may elect to be governed by the provisions of this Act or to establish with other municipalities areawide waste disposal districts subject to the provisions of this Act, and such municipality or area shall thereby become eligible for grants under this section.

(Alternative #1)

(1) The agency may in the name of the State make or contract to make, within the limitation of the appropriations therefor, a state grant for payment during any of the ten successive fiscal years, to any municipality or to two or more municipalities jointly to cover the entire cost for the preparation of a comprehensive study. *NY(a)*

(Alternative #2)

(1) The county may levy taxes for residual waste management purposes upon all taxable property within the county, which shall not affect the amount or rate of taxes which may be levied for other county purposes. *MN(d)*

The county may issue general obligation bonds for the acquisition or betterment of facilities for the program, or for refunding outstanding general obligation bonds issued for this purpose. *MN(d)*

(Alternative #3)

(1) The agency shall determine priorities and allocate available funds among the counties and cities applying for aid according to criteria established by regulations of the department considering population, urban development, environmental effects of waste disposal, existing waste handling practices, and the local justification of their proposed expenditures. *WA(a)*

The counties and cities shall match their planning aid allocated by the director by an amount not less than _____ percent of the estimated cost of such planning. Any federal planning aid made directly to a county or city shall not be considered either a state or local contribution in determining local matching requirements. Counties and cities may meet their share of planning costs by cash and contributed services.

SECTION VIII
AREAWIDE/MUNICIPAL AUTHORITY - MANAGEMENT

VIII(A) Intra-Municipal Authority

SUPPLEMENTARY PROVISIONS

(1) Local municipalities shall comply with the provisions of this Act. PA(a)

(a) Each municipality or combination of municipalities shall survey the residual waste management practices within its boundaries and prepare a residual waste management plan to be compatible with the state plan. The plan will provide 10- and 20-year qualitative and quantitative projections of the residual waste expected to be generated within the jurisdiction from residential, commercial, industrial and agricultural sources, and shall be submitted to the department for its review and approval prior to its local adoption and implementation.

(b) Each municipality shall adopt and implement the comprehensive residual waste management plan.

(c) Municipalities with contiguous territories within or adjacent to this State may, by ordinance or contract, join in an inter-municipal areawide residual waste management agency.

(i) All municipalities entering into such an areawide residual waste management agency agreement shall not withdraw therefrom during the term of such agreement.

(ii) All proposed agreements under this section must be submitted to and approved by the agency prior to enactment.

(2) The legislative body of a municipality not participating in an intermunicipal residual waste management agency shall form a residual waste management agency to serve the area within its boundaries.

(a) Any two or more cities, towns or counties or other public agencies may enter into agreements with one another for joint or cooperative action pursuant to a residual waste management system. Any such agreement shall specify the following: OK(a)

(i) its duration;
(ii) the precise organization, composition and nature of any separate legal or administrative entity created thereby together with the powers delegated thereto;
(iii) its purpose or purposes;
(iv) the manner of financing the joint or cooperative undertaking and of establishing and maintaining a budget therefor;
(v) the permissible methods to be employed in accomplishing the partial or complete termination of the agreement; and
(vi) any other necessary and proper matters.

(3) Each governmental unit may operate and maintain residual waste disposal facilities, and for this purpose may employ all necessary personnel, may adopt regulations governing the operation thereof, may establish and collect reasonable, non-discriminatory rates and charges for the use thereof by any local government unit or person. Such moneys shall be used to pay all costs of acquisition, operation and maintenance of the facility.

(a) Each governmental unit may contract with any person for the operation and maintenance by such person of any residual waste facility. Such contract shall provide for the operation and maintenance of such facility in accordance with any regulations of the agency, council and the county relating thereto.

(b) Each governmental unit may also adopt ordinances governing the operation of residual waste facilities by any local government unit or person. Such ordinances shall be consistent with applicable regulations adopted by the agency. The governmental unit may prescribe a penalty for the violation of any such ordinance not exceeding the maximum which may be specified for a misdemeanor.

(c) Each governmental unit may act under any appropriate law providing for joint or cooperative action between government units, to accomplish any specific purpose.

(d) Each governmental unit may sell or lease any property rights, land, buildings, structures or equipment previously used or acquired for residual waste disposal purposes. Each governmental unit may convey to or permit the use of any such property by a local government unit, with or without compensation, without submitting the matter to the voters of the county.

(e) All moneys received by any governmental unit from any residual waste facility shall be paid into the county treasury, placed in a special fund designated as the county residual waste disposal fund. Such moneys are to be used only for the operation of the residual waste management system.

VIII(B) Eminent Domain, Zoning, Preemption

(1) A county or a city may acquire real or personal property through the exercise of the power of eminent domain for the purpose of operating and maintaining disposal sites. With the consent of the city involved, a county may acquire property for a site within the limits of a city. With the consent of a county having jurisdiction, a city may acquire property for a site outside the limits of the city. OR(a)

(2) Before instituting any condemnation proceedings to obtain necessary real property, the authority shall have made diligent efforts to obtain said property by purchase or other means satisfactory to the authority and shall have ruled, by resolution, that in its judgment the property is not otherwise obtainable save through condemnation proceedings. CT(b)

(a) Any condemnation proceedings of the authority shall be brought in accordance with established administrative and judicial procedures.

(3) Unless the property to be condemned is located in an area zoned industrial, or in an area at or contiguous to an existing residual waste facility or waste disposal area, the authority shall, before proceeding with condemnation, first receive the written consent of the municipal authority having jurisdiction.*

(4) Where a person entitled to an award in proceedings to condemn any real property remains in possession of said property after title is vested in the condemnor, the reasonable value of his use and occupancy of such property after title has been vested, or after any other time as fixed by agreement or by a determination of the court, shall be a lien against such award.

As noted earlier, the various states have different policies regarding conformance with existing zoning.

SECTION IX
ESTABLISHMENT OF RESIDUAL WASTE DISPOSAL SITES

IX(A) Criteria Used to Determine Location of Sanitary Landfill

SUPPLEMENTARY PROVISIONS

(1) A permit will be obtained for new or expanded waste disposal sites. A soils, geologic and groundwater report of the characteristics of the proposed site shall be included as required by the agency. This report shall be based on a geological investigation and on a published standard soil survey or equivalent data and shall encompass the criteria below: CO(a)

(a) A sufficient number of borings or wells shall be drilled to determine the soil, geology and groundwater conditions. These may be supplemented by excavations where appropriate.

(i) Borings or wells shall be drilled five feet into the groundwater or bedrock or 20 feet below the base of the proposed landfill, whichever is shallower.

(ii) One boring or well shall be drilled near the point of highest elevation, ten feet into the groundwater.

(iii) A minimum of one groundwater quality monitoring well shall be drilled in each dominant direction of groundwater movement. Location of monitoring wells shall be approved in advance of drilling by the agency groundwater geologist.

(b) Each site shall meet with the approval of the agency.

(c) Topographic maps shall be provided and shall include as a minimum the following:

(i) Borrow areas.

(ii) Location of public and private water supplies, wells, springs, streams, swamps or other bodies of water within one-fourth of one mile of the proposed landfill site property lines.

(d) Certain factors may serve to limit normal sanitary landfill operations and information pertaining to these factors shall be included as follows:

(i) Location of underground and surface mines within one-fourth of one mile of the proposed landfill site property lines and maps showing the extent of deep mine workings, elevation of the mine pool and location of mine pool discharges.

(ii) Location of gas and oil wells.

(iii) Location of high-tension power line right-of-ways.

(iv) Location of fuel transmission pipeline right-of-ways.

(e) Each map shall be accompanied by the following:

(i) Typical cross-sections of lifts, dimensions and elevations of the base lifts.

(ii) Grades required for proper drainage of lifts.

(2) Criteria shall be complied with to prevent any possibility of groundwater pollution.

   (a) To assure that there is no risk of free flow to groundwater, sites with less than six feet of fine soil over limestone or other fissured rocks, or coarse sand and gravel shall be considered unsuitable.
   (b) A site with six or more feet of fine soil over limestone or other fissured rocks, or coarse sand and gravel, is classed in the range of limited suitability.
   (c) Depth to the seasonal high water table shall be increased by at least six feet for each additional lift depending on the character of the earth material.
   (d) The site shall not have a flooding hazard of greater frequency than once in 50 years.
   (e) The site shall be designed and operated in a manner which will control surface water percolation.
   (f) Direct fill into water or flood plain shall not be permitted.
   (g) Effective drainage of surface water shall be provided.

      (i) Provisions shall be made to manage surface water at the sanitary landfill site.
      (ii) The grading of the final surface of the fill area shall provide a slope of not less than 1.0% but not exceeding 15%, except as approved by the agency.

IX(B) Classifications of Residual Waste Disposal Sites (*Note: Classifications of Waste on Page 4-16)

SUPPLEMENTARY PROVISIONS CA(f)

(1) Class I Disposal Sites are those at which complete protection is provided for all time for the quality of ground and surface waters from all wastes deposited therein and against hazard to public health and wildlife resources.

   (a) Geological conditions are naturally capable of preventing vertical hydraulic continuity between liquids and gases emanating from the waste in the site and usable surface or groundwaters.
   (b) Geological conditions are naturally capable of preventing lateral hydraulic continuity between liquids and gases emanating from wastes in the site and usable surface or groundwaters, or the disposal area has been modified to achieve such capability.
   (c) Underlying geological formations which contain rock fractures or fissures of questionable permeability must be permanently sealed to provide a competent barrier to the movement of liquids or gases from the disposal site to usable water.
   (d) Inundation of disposal areas shall not occur until the site is closed in accordance with requirements of the regional board.
   (e) Disposal areas shall not be subject to washout.

(f) Leachate and subsurface flow into the disposal area shall be contained within the site unless other disposition is made in accordance with requirements of the regional board.

(g) Sites shall not be located over zones of active faulting or where other forms of geological change would impair the competence of natural features or artificial barriers which prevent continuity with usable waters.

(h) Sites made suitable for use by man-made physical barriers shall not be located where improper operation or maintenance of such structures could permit the waste, leachate, or gases to contact usable ground or surface water.

(i) Sites which comply with a, b, c, e, f, and g, but would be subject to inundation by a tide or a flood of greater than 100-year frequency may be considered by the regional board as a limited Class I disposal site.

(2) Class II Disposal Sites are those at which protection is provided to water quality from Group 2 and Group 3 wastes. The types of physical features and the extent of the protection of groundwater quality divides Class II sites into the two following categories:

(2.1) Class II-1 sites are those overlying usable groundwater and geologic conditions are either naturally capable of preventing lateral and vertical hydraulic continuity between liquids and gases emanating from the waste in the site and usable surface or groundwaters, or the disposal area has been modified to achieve such capability.

(2.2) Class II-2 sites are those having vertical and lateral hydraulic continuity with usable groundwater but for which geological and hydraulic features such as soil type, artificial barriers, depth to groundwater, and other factors will assure protection of the quality of usable groundwater underneath or adjacent to the site.

(a) Disposal areas shall be protected by natural or artificial features so as to assure protection from any washout and from inundation which could occur as a result of tides or floods having a predicted frequency of once in 100 years.

(b) Surface drainage from tributary areas shall not contact Group 2 wastes in the site during disposal operations and for the active life of the site.

(c) Gases and leachate emanating from waste in the site shall not unreasonably affect groundwater during the active life of the site.

(d) Subsurface flow into the site and the depth at which water soluble materials are placed shall be controlled during construction and operation of the site to minimize leachate production and assure that the Group 2 waste material will be above the highest anticipated elevation of the capillary fringe of the groundwater. Discharge from the site shall be subject to waste discharge requirements.

(3) Class III Disposal Sites are those at which protection is provided to water quality from Group 3 wastes by location, construction and operation which prevent erosion of deposited material.

Classification of Wastes Discharged to Land

Group 1 Wastes: are wastes which consist of or contain toxic substances and substances which could significantly impair the quality of usable waters.

Group 2 Wastes: are wastes which consist of or contain chemically or biologically decomposable material which does not include toxic substances nor those capable of significantly impairing the quality of usable waters.

Group 3 Wastes: are wastes which consist entirely of non-water soluble, nondecomposable inert solids.

SECTION X
PERMITS

SUPPLEMENTARY PROVISIONS

MODEL(a)

(1) The agency is hereby authorized to issue permits for residual waste management facilities and systems, including design, operation, maintenance, substantial alteration, modification or enlargement. All such permits shall be nontransferable, shall be for a specified term of years, and shall be subject to the fees established by the agency. All such permits so issued shall be conditioned upon the observance of the laws of the State and the rules and regulations authorized herein.

(2) Each permit holder shall apply for the renewal of each permit held not more than ___ days prior to the expiration date of each permit to be renewed and shall tender with the application and a non-returnable fee as established by the agency.

(3) Each permit application and each permit renewal application shall be submitted with proof of a performance bond, in a sum established by the agency, payable to the State and conditioned on the fulfillment by the permit holders of the requirements of this Act and the rules and regulations authorized herein.

SUPPLEMENTARY PROVISIONS

(1) It shall be unlawful for any person, municipality, county or authority to use or continue to use their land or the land of any other person, municipality, county or authority as a residual waste processing or disposal area of a residual waste management system or transport residual wastes without first obtaining a permit from the agency; provided that this section shall not apply to farmers and they shall not be required to obtain a permit for normal farming operations. PA(a)

  (a) The statement shall contain such information as may be prescribed by the agency.

  (b) No statement shall be approved by the department when in the opinion of the department such residual waste collection or disposal system or operation will not meet the standards or criteria set forth in regulations as may be promulgated under authority of this Act. NJ(a)

(2) Permits under this Act shall not be required for the following facilities: CT(c)

  (a) Residual waste facilities at which less than five (5) tons per year of solid waste are processed or disposed of provided that hazardous or toxic waste is not disposed of at the area.

  (b) Areas for the disposal of clean fill which do not pollute ground and surface waters of the State.

(3) Any person, municipal authority or regional authority who builds, establishes or alters a residual waste facility must obtain a permit.

  (a) Each application shall include all information required by the most current regulations or guidelines published by the agency regarding such facility; however, nothing in these regulations shall prevent the agency from requesting additional information concerning an application if it determines that such additional information is necessary.

  (b) For purposes of permit application, the agency shall classify residual waste disposal areas. Such classification may include, but need not be limited to the following scheme:

    (i) existing residual waste disposal areas where no expansion will take place;

    (ii) existing residual waste disposal areas where expansion will take place;

    (iii) existing residual waste areas which will be closed within one year of the date of these regulations;

    (iv) new residual waste disposal areas to be permitted after satisfactory review and approval of an application.

  (c) Information required by the agency shall depend upon the class of the residual waste disposal areas. Such information shall be outlined in guidelines prepared by the agency.

(4) The agency may impose any reasonable conditions upon an approval of a residual waste facility.

(5) The holder of a permit may not transfer it without prior written permission of the agency.

(6) A disposal site shall not be operated, maintained or substantially altered, expanded or improved, and a change shall not be made in the method or type of disposal at a disposal site, until the person owning or controlling the disposal site obtains a permit therefor from the agency. OR(a)

  (a) An application shall contain a description of the existing and proposed operation and the existing and proposed facilities at the site, with detailed plans and specifications for any facilities to be constructed.

  (b) Plans, designs and relevant data for the construction or alteration of residual waste processing and disposal facilities and the location of residual waste processing and disposal areas shall be prepared by a registered professional engineer and shall be submitted to the agency for approval prior to the construction, alteration or operation of such facility or agricultural purposes in a manner which will not create a public health hazard or pollution of the air or water. PA(a)

(7) Any permit granted by the agency, as provided in this Act, shall be revocable or subject to suspension at any time the agency shall determine that the residual waste processing or disposal facility or area:

(a) is, or has been conducted in violation of this Act or the rules, regulations, or standards adopted pursuant to the Act;
(b) is creating a public nuisance;
(c) is creating a health hazard; or
(d) adversely affects the environment or economic development of the area.

SECTION XI
STANDARDIZATION

XI(A) Requirements and Prohibitions

SUPPLEMENTARY PROVISIONS

(1) Agency approval is required to operate a waste management facility. Each operator of a residual waste management system shall, in order to continue operation, obtain written approval from the Enforcement Agency having jurisdiction. In issuing such approval, any conditions necessary to achieve compliance with standards or a county plan shall be specified. Such conditions are to be stated in the written approval. Facilities which were in operation prior to the effective date of these standards shall be granted approval to continue operation if the Enforcement Agency determines that the station reasonably meets the standards contained in this Act, and any applicable local ordinances and regulations. No operator shall commence, recommence or continue operation of a station without first obtaining approval from the Enforcement Agency. CA(c)

(2) The operator shall comply with conditions placed upon the station operation by the Enforcement Agency pursuant to this Act. Each station constructed, substantially remodeled or substantially expanded after the date of approval of a county residual waste management plan shall be in conformance with said plan.

(3) All contracts made by any city, town, or regional authority with any person, another municipality or regional authority to provide for collection, transportation, processing, storage and disposal outside of its boundaries of residual waste generated within its boundaries, or any of such services, shall be reviewed and have the approval of the agency as conforming to recognized standards of public health and safety before they can be implemented. CT(a)

(a) Every person engaged in the business of residual waste collection or of residual waste disposal shall furnish and file with the agency in connection with each contract or agreement entered into by him for the provision of such service, a performance bond in such amount as may be required by the agency in its rules or regulations. NJ(b)

(b) Should any person engaged in the residual waste collection business or the residual waste disposal business fail or refuse to complete, execute or perform any contract or agreement obligating such person, the agency may order any person to extend his collection or disposal service into any area where service has been discontinued. The agency shall fix just and reasonable rates and charges for such services in the extended area.

(4) It shall be unlawful for any person, municipality, county, or authority to:

(a) Dump or deposit or permit the dumping or depositing of any residual waste onto the surface of the ground without having obtained a permit.

(b) Construct, alter or operate a residual waste processing or disposal facility or area of a residual waste management system without a permit or other approval from the agency or in violation of the rules, regulations, standards, or orders of the department.

(c) Store, collect, transport, process or dispose of residual waste contrary to the rules, regulations, standards or orders of the agency or in such a manner as to create a public nuisance.

(d) Refuse or hinder entry and inspection by an agent or employees of the agency after such agent or employee identifies himself and gives notice of his purpose.

XI(B) Variances
(Exceptions, Exemptions, "Grandfather Clause")

SUPPLEMENTARY PROVISIONS

(1) Waivers or modification of individual mandatory standards may be made only by the agency upon recommendation of the Enforcement Agency and the local land use authority having jurisdiction. Waivers shall be granted only to relieve hardships, or to facilitate experimental operations intended to develop new methods or technology. Waivers or modifications for experimental operations will be considered only upon submission of an acceptable detailed proposal which clearly sets forth the objectives, goals, procedures, controls, monitoring, reporting time frame, and other pertinent data regarding the experiment, providing that no significant health, safety, or environmental hazards or public nuisances will be created. Such modifications or waivers shall be limited to a maximum of two years; however, the agency may renew the waiver or modification for one or more additional two-year periods upon a showing that the experimental operation is proceeding satisfactorily and requires additional time to permit valid conclusions to be drawn regarding the results of the experiment. Waivers involving health-related standards shall be granted only with concurrence of the department of health. Upon successful conclusion of the experimental operation the agency can grant a permanent waiver of an individual mandatory standard. CA(c)

(Alternative #1)

(1) The agency may issue and grant annually an exemption if in his judgment no nuisance, or hazard to public health or the environment shall be created. Any exemption hereby authorized shall expire and become void if by reason of said exemption the operation of a disposal area shall be or become a nuisance or hazard to public health or the environment, or contravene any provision of this Act. *NY(b)*

(Alternative #2)

(1) Modification of existing sites, facilities, and operating procedures for conformance with the requirements of this Act shall be accomplished as promptly as possible and in conformance to the county or regional residual waste management plan. When the degree of necessary improvement is of such an extent that immediate compliance cannot be accomplished, special approval shall be requested from the jurisdictional agency. Such a request shall set forth a program for compliance with this Act along with a time schedule for the commencement and completion of necessary improvements. *WA(b)*

SECTION XII
ENSURING COMPLIANCE

XII(A) Enforcement Penalties

(1) Every person convicted of violating this Act or the rules and regulations authorized herein shall be subject to a fine not to exceed $____ or imprisonment for not more than six months in a county jail, or both. MODEL(a)

(2) The agency is hereby authorized to inspect all residual waste management activities at all reasonable times, to insure compliance with the laws of this State, the provisions of this Act and the rules and regulations authorized herein. It shall be unlawful for any person to interfere with such inspections.

SUPPLEMENTARY PROVISIONS

(1) Any person or any officer or agent thereof who shall knowingly violate any of the provisions of this Act or aid or advise in such violation, or who, as principal, manager, director, agent, servant or employee knowingly does any act comprising a part of such violation, is guilty of a misdemeanor and shall be punished by imprisonment for not more than three years or by a fine of not more than $______ or both; and, if a corporation, by a fine of not more than $______. NJ(b)

- (a) Each day a violation continues, constitutes a separate offense. Such separate offenses may be joined in one indictment or complaint or information in several counts. OR(a)
- (b) Penalties provided in this section are in addition to and not in lieu of any other remedy.
- (c) In addition to the penalty prescribed in this section, the agency may revoke or suspend the license of any person who willfully violates this Act and who is required to have a license.

(Alternative #1)

(1) Any person who shall violate any provision of this Act or any rule, regulation or administrative order promulgated hereunder, or who shall engage in the residual waste collection business or residual waste disposal business without having been issued a certificate of public convenience and necessity, shall be liable to a penalty of not more than $___ for a first offense, not less than $____ or more than $______ for a second and every subsequent offense. The penalties herein provided shall be enforced by summary proceedings instituted by the agency in the name of the State. *NJ(b)*

(Alternative #2)

(1) In addition to any liability, duty, or other penalty provided by law, the agency may assess a civil penalty for any violation pertaining to residual waste management. The amount of such civil penalty shall be determined consistent with the following schedule: OR(b)

(a) Not less than one hundred dollars ($100) nor more than five hundred dollars ($500) for violation of an order of the agency.

(b) Not less than fifty dollars ($50) nor more than five hundred dollars ($500) for any violation which causes, contributes to, or threatens:

(i) a hazard to the public health or safety;

(ii) damage to a natural resource, including aesthetic damage and radio-active irradiation;

(iii) air contamination;

(iv) vector production;

(v) exposure of any part of an ecosystem to environmentally hazardous wastes, as defined by statute or rule of the agency; or

(vi) a common law public nuisance.

(c) Not less than twenty-five dollars ($25) nor more than three hundred dollars ($300) for any other violation.

XII(B) Inspections

SUPPLEMENTARY PROVISIONS

(1) Any authorized official of the agency or the local Enforcement Agency may make inspections of any facility, equipment or vehicle used for storage, collection, transportation, processing, disposal or reclamation of residual waste, as are necessary to insure compliance with these regulations. CA(c)

- Entry shall be made at any reasonable time for the purpose of determining compliance with this Act and relevant laws and regulations. WA(b)

SECTION XIII
JUDICIAL AND ADMINISTRATIVE PROCEEDINGS

SUPPLEMENTARY PROVISIONS

(1) All oral evidence and testimony given at the hearing shall be recorded and transcribed. All written evidence and testimony shall be included as appendices to the transcribed proceedings. A copy of the transcript of such proceeding may be obtained from the agency upon request and payment of the costs for making such copy. OK(b)

(2) Prior to the adoption of state policy for residual waste management, the agency shall hold a public hearing respecting the adoption of such policy. At least ___ days in advance of such hearing the board shall give notice of such hearing by publication. CA(a)

(3) Any appeal of the application of any local rule or regulation promulgated pursuant to these standards must be first heard by the local governing body. If the appeal has been denied by the local governing body, the agency may hear the appeal. The agency may hear only those appeals which allege that the application or enforcement of any local rule or regulation promulgated by the local governing body is an inconsistent, erroneous or unlawful application or enforcement of these standards. Such petitions will be filed in accordance with the requirements of the agency and must be acted upon within a period of ________ days after period of receipt. The agency will have the authority to confirm the action taken by the local Enforcement Agency, require that the local Enforcement Agency reconsider the action they have taken, or the agency can set aside any action taken by the local agency and adopt those actions deemed necessary.

(4) All records of the appeals hearings shall be open to inspection by the public. CA(c)

(5) The agency, after reasonable notice and public hearing, shall temporarily suspend or revoke a certificate of designation that has been granted by it for failure of a site and facility to comply with all applicable laws, resolutions, and ordinances or to comply with the provisions of this Act or any rule or regulation adopted pursuant thereto. CO(a)

- Those counties desiring to do so, may, pursuant to their permit processing authority revoke permits. In order for the county to revoke a permit: MN(f)

  (i) The agency shall approve or reverse the revocation;
  (ii) The county must receive written approval of the permit revocation from the agency;
  (iii) Where a revocation has been approved by the agency, the applicant must be informed in writing by the county of the reasons for denial or revocation;
  (iv) A revocation of a permit by a county shall be without prejudice to the applicant's right to an appearance before the agency within ___days, or for filing a further or new application with the county after revisions are made to meet objections specified as reasons for revocation.

(6) If the agency refuses to grant a permit, the applicant may petition for a hearing before the agency to contest the decision. The agency shall give ___day notice to any person in the county where is located the facility in issue who has requested notice of enforcement of proceedings, and shall publish that ___day notice in a newspaper of general circulation in that county. The burder of proof shall be on the petitioner. If there is no final action by the agency within ___days, petitioner may deem the permit issued under this Act. IL(a)

- Any party adversely affected by a final order or determination of the agency may obtain judicial review, by filing a petition for review within ____ days after entry of the order or other final action.

(Alternative)

(7) Whenever the agency denies a permit or suspends a permit, it shall, upon request of the applicant or holder of the permit, grant a hearing on such denial or suspension within thirty days after the request therefor is made. Notice of the hearing shall be given all interested parties. Within thirty days after the hearing, the agency shall notify the applicant or the holder of the permit in writing of his determination and the reasons therefor. Any party aggrieved by such determination may appeal to the agency by filing with the director a notice of appeal within thirty days after receipt of notice of the determination of the agency. *WA(a)*

SECTION XIV
SITE CLOSURE (COMPLETION, ABANDONMENT)

SUPPLEMENTARY PROVISIONS

(1) Upon closing of residual waste facilities requirements shall be complied with. CT(c)

(a) If an owner or permittee intends to close a residual waste disposal facility, he must notify the agency of his intention to do so at least ______ days prior to the closing.

(b) When closing a residual waste disposal area, the permittee shall comply with the regulations governing such closing:

(i) concerning grading and seeding;
(ii) concerning final cover;
(iii) concerning vector control; and
(iv) concerning decomposition gases.

(c) The agency may require additional construction or information submitted to insure the proper closing of any facility so as to preserve and protect the natural resources and environment of the State.

(d) The agency shall cause to be inspected all residual waste facilities that have been closed to determine if the closing is complete. It shall notify the owner of a closed residual waste facility if the closing is satisfactory.

(e) Information concerning the use of the site following closing shall also be submitted to the agency for its approval.

(f) The owner or operator of sanitary landfill site shall monitor gas, water and settling at the completed site for a period of _____years after the site is completed or closed. The owner or operator shall take whatever remedial action is necessary to abate any gas, water or settling problems which appear during the three year period.

(g) The owner or operator shall file a detailed description of the site, including a plat, with the appropriate county land recording authority for the county in which the site is located.

SECTION XV
REUSE, RECYCLE, RECOVERY, INCENTIVES

SUPPLEMENTARY PROVISIONS

(1) Recommended incentives are identified as consisting of:

(a) State grants, loans, and other assistance, and disincentives, to public agencies and private organizations, and individuals necessary to accelerate the reclamation and recycling of resources from wastes. CA(a)

(b) The effects of existing public policies, including subsidies and economic incentives and disincentives, percentage depletion allowances, capital gains treatment, and other tax incentives and disincentives, upon the recycling and reuse of solid wastes, and the likely effects of the modification of elimination of such incentives and disincentives upon the reuse, recycling, and conservation of such resources.

(c) The advantages and disadvantages, and methods of imposing, disposal taxes on packaging, containers, vehicles, and other manufactured goods, which charges would reflect the cost of final disposal, the value of recoverable components of the item and any social costs associated with the nonrecycling or uncontrolled disposal of such items.

(2) A user fee of 15 cents per cubic yard shall be levied on residual waste materials disposed at a permitted landfill. Except that no fee shall be levied against a company for by-product materials produced by its manufacturing, construction, power-generating or mining processes when such materials are disposed of at the company's private disposal facility. Such charge shall be collected from the operator of the facility by the state commissioner of taxation in a manner determined by him. Proceeds of such disposal charge shall be paid to the general fund of the state treasury. Any contract in effect, if the parties to the contract mutually agree, may be renegotiated to reflect increased costs due to the user fee imposed by this section. The exemption shall terminate upon expiration of the contract. If a party to such a contract, after a good faith attempt to renegotiate the contract, is unable to do so and the contract will continue in effect, exempt from the user fee imposed by this section. The operator of residual waste disposal facility may require such a party to display his certificate of exemption at the operator's request. MN(a)

(3) Reusable/Deposit type of containers are encouraged to be used. Specific practices are required of dealers and distributors. OR(a)

(a) A dealer shall not refuse to accept from any person any empty beverage container of the kind, size and brand sold by the dealer, or refuse to pay to that person the refund value of a beverage container.

(b) A distributor shall not refuse to accept from a dealer any empty beverage containers of the kind, size, and brand sold by the distributor, or refuse to pay the dealer the refund value of a beverage container.

(c) To promote the use in this state of reusable beverage containers of uniform design, and to facilitate the return of containers to manufacturers for reuse as a beverage container, the agency shall certify beverage containers which satisfy the requirements of this section.

SECTION XVI
ADVISORY COUNCIL AND ENVIRONMENTAL STUDY

SUPPLEMENTARY PROVISIONS

(1) There is hereby established the Residual Waste Management Advisory Council. CT(b)

- The council shall consist of thirty-one members, as follows: Fifteen members representing the planning regions of the State; Eight members representing business and industry; and Eight representing the general public including environmental and conservation organizations and interests.

(Alternative)

(1) There is hereby created an independent board to be known as the Pollution Control Board, consisting of 5 technically qualified members, no more than 3 of whom may be of the same political party, to be appointed by the Governor with the advice and consent of the Senate. *IL(a)*

(2) There is hereby established within the Executive Branch of the State Government an institute to be known as the Institute for Environmental Quality. The Institute shall be under the supervision and control of a director who shall be appointed by the Governor for a term of three years. IL(a)

(a) The director shall employ such personnel, provide such facilities, and contract for such outside services as may be necessary to carry out the purposes of this Act.

(b) it shall be the duty of the Institute to investigate practical problems and implement studies and programs relating to the technology and administration of environmental protection, to obtain, store, and process relevant data, and to recommend technological, administrative, and legislative changes and developments respecting environmental quality and re-cycling, reuse and conservation of natural resources and residual wastes.

SECTION XVII
SPECIAL CONSIDERATIONS
XVII(A) Hazardous Waste

SUPPLEMENTARY PROVISIONS

(1) Whenever hazardous waste is produced and alternate reclamation or reuse is not possible, the collection, transportation, processing and disposal shall be accomplished in accordance with the provisions of this Act. PA(b)

(a) There shall be no consignment of waste to another:

(i) without the disclosure of its hazardous nature;

(ii) without the assurance that subsequent handling and disposal shall be accomplished in a satisfactory manner and in accordance with the laws and regulations of this Act.

(b) The agency shall maintain a list of hazardous wastes.

(i) The agency shall maintain a multiple list of hazardous or potentially hazardous materials as determined by experience, investigation and literature.

(ii) The lists shall be so divided so as to provide an element of delineation.

(iii) Any material or substance proven to be hazardous by actual contamination or injury shall be placed on the list with the proper information to guide subsequent handling.

(c) Listing or non-listing is not the basis of any conclusive presumptions.

(i) The naming or omission of any material or substance should not be construed to be ultimate determination of classification.

(ii) No substance should be considered wholly free of suspicion as a hazardous agent solely based on its absence from the agency listing.

(d) The agency shall maintain a list of toxic wastes.

(i) Each item or class of item shall be listed by common name, chemical name, trade name or otherwise identified.

(ii) The lower limits of toxicity shall be indicated in the listing.

(iii) Recommended handling and disposal methods when known shall be added to the listing to assist in upgrading management practices. Known unsatisfactory handling practices shall be specifically delineated.

(e) The agency shall maintain a listing by flammable and explosive wastes.

(i) Each item or class of item shall be listed by common name, chemical name, trade name or otherwise identified.

(ii) The conditions or limits of flammability or explosiveness shall be indicated in the listing. The listing shall include a lower limit of the quantity considered hazardous even though respectfully handled.

(iii) The recommended handling and disposal methods shall be added to the listing when known. Unsatisfactory handling practices shall be specifically delineated.

(f) The agency shall maintain a list of pathogenic wastes.

(i) Each item or class of item shall be listed by common mame, chemical name, trade name or otherwise identified.

(ii) Quantity limitations which contribute to the hazardous quality of the waste shall be provided.

(iii) Both desirable and undesirable disposal methods shall be included in the listing.

(g) The agency shall maintain a list of radioactive wastes.

(i) Wastes shall be described by specific common name and chemical name.

(ii) The hazardous materials listing shall not be considered all inclusive and shall be updated and expanded as new information becomes available.

(iii) References concerning the hazardous nature of materials placed on the listing shall be maintained.

(iv) Federal and State standards for handling and disposal shall be followed.

(2) Hazardous Waste Control and Spill Contingency Plan: The agency shall study and investigate the problems of hazardous waste control and shall develop a statewide hazardous waste management plan detailing the location of hazardous waste disposal facilities and storage sites throughout the state and the needs relative to the interstate transportation of hazardous waste. MN(a)

(3) No hazardous wastes shall be deposited in a residual waste disposal site or facility operating under an agency permit unless the site of facility OK(b)

has been approved for deposition of such wastes by the agency. Disposal of hazardous wastes as approved by the agency may include deposition at a sanitary landfill site, at a separate land disposal site or facility or by some other method including but not limited to "soil farming techniques" (incorporation into the top layer of soil), resource recovery facilities or approved type incineration.

XVII(B) Record Keeping Regarding Wastes

SUPPLEMENTARY PROVISIONS

(1) Station records generally: CA(c)

(a) Weight Volume Records. Each station operator shall maintain records of weights or volumes handled in a manner and form approved by the agency. Such records shall be sufficiently accurate for overall planning and control purposes.

(b) Special Occurrences. Each operator of a station handling an average of 100 or more cubic yards of waste per operating day shall maintain a log of the following information: fires, injury and property damage accidents, explosions, incidents regarding hazardous wastes, flooding and other unusual occurrences.

(c) Inspection of Records. The records shall be open to inspection by authorized representatives of the agency, the local health entity and other duly authorized regulatory and enforcement agencies during normal business hours. Information of a proprietary nature need not be presented, notwithstanding the reporting requirements of local government ordinances, contracts or agreements. Records considered to be of confidential nature shall be treated as confidential information by the agency.

(2) Preparation of hazardous waste records: CA(g)

(a) The Hazardous Waste Hauler Record (Manifest) is to be utilized for recording all hazardous wastes transported to handling facilities including processing plants, resource recovery facilities, or disposal sites. The Manifest must be carried by all haulers of hazardous wastes whether said hazardous waste is a liquid, solid or sludge The Manifest sections must be completed by the waste producer, by the waste hauler and by the hazardous waste facility operator.

(b) The producer of the waste must provide his name, pick-up address and the date the Manifest was prepared. The producer shall also indicate the process, operation, or activity which most accurately describes the source of the waste. The producer shall describe the wastes accurately. The description shall include the type of waste, composition, hazardous properties, and special handling instructions. A waste producer may retain the services of another party in order to identify the wastes through analysis or inventory. The ultimate responsibility for proper identification remains with the producer. In the case of mixed waste, the producer shall maintain logs or records of mixing operations so that the composition of the waste can be estimated.

- Special Handling Instructions: The producers must provide any special handling instructions that may pertain to the waste. This information is to be provided in order to facilitate handling and to ensure the safety of personnel hauling and disposing of the waste.

(c) The hauler of hazardous wastes shall provide his name, business address, date of pick-up and his State Waste Hauler's Registration Number and a serial number on the Manifest. He shall indicate the type of vehicle used, whether vacuum truck, flatbed truck, or other.

(d) The hazardous waste facility operator handling hazardous wastes must list his name and site address. The weight of the waste shall be measured or estimated at the site, and the amount shall be indicated in tons on the Manifest, along with the amount of the State hazardous waste fee. The operator shall indicate the method of handling the waste, whether by recovery, treatment, disposal, or a combination of these methods, and the date received at the facility. In case of a multi-waste load with a separate Manifest for each waste when the wastes have been mixed in a common container or tank, the estimated or measured weight of the entire load shall be indicated on only one of the Manifests. An operator of a hazardous waste facility shall not accept any waste material which he believes to be hazardous unless a properly completed Manifest which accurately identifies the waste is submitted by the hauler.

- The information derived from this record keeping requirement is to be used by the disposal site operator to select the best method of handling the material. If disposal is the most appropriate method then the record will provide a basis for selecting the best location in the existing site for deposition of the waste. The knowledge of the location of wastes within a site will prevent incompatible materials from mixing with each other and shall therefore result in a decrease in the production of poisonous gases and fires at disposal sites.

XVII(C) Regulation of Transportation of Residual Wastes*

(1) It shall be unlawful to transport or to permit the transportation of any residual waste, whether by truck, train, barge or pipeline without having first obtained agency approval. The transportation of residual waste material shall be accomplished neither in a manner which is contrary to the rules, regulations, standards or orders of the agency, nor in such manner as to adversely effect or endanger the health, safety, environment or economy of the area of destination or of any area through which such transportation occurs.

(2) The agency shall possess final approval authority over:

(a) Routing-to avoid areas where spills could have serious deleterious effects upon the environment and water quality.

(b) Equipment condition - to ensure effective transportation of materials and maintenance of safe conditions.

(c) Pipeline construction - to require construction criteria for meeting the waste demands.
(d) Time schedules regarding transportation - to provide the safest and most efficient interaction with the general community business.
(e) Maintenance of facilities - to enforce the best management practices available.

*The above provisions are suggested as a possible approach to establishing control over transportation of residual wastes. The legislation which was studied dealt ineffectively with this area.

XVII(D) Abandoned Motor Vehicles

(1) Any person may apply to be licensed as a collector by submitting an application to the agency. In the application, an applicant must demonstrate that he owns or has access to at least one tow truck and equipment having the capacity to haul two or more abandoned motor vehicles at one time. The licensee shall also keep a record of all abandoned motor vehicles and other scrap metal collected, which record shall be subject to review by the site operator and the agency. MN(f)

(2) Any person may apply to be licensed as a transporter or reducer by submitting an application to the agency. The applicant must demonstrate:

(a) that he has ready access to a market for any and all abandoned motor vehicles and other scrap metal which he may reduce;
(b) that he owns or has adequate transportation or reduction equipment;
(c) that he will provide adequate fire-fighting equipment at each regional collection site.

The licensee shall also keep a record identifying all abandoned motor vehicles and other scrap metal transported or reduced, which record shall be subject to review by the site operator and the agency. Unless specifically authorized in writing by the agency, reduction of abandoned motor vehicles is prohibited by open burning or incineration. In the event of reduction by means of incineration pursuant to an agency permit, said person shall have in his possession an affidavit from the permittee holding a permit from the agency for such incinerator, verifying that the abandoned motor vehicles in his possession were reduced in an incinerator subject to an agency permit.

(3) Any person may apply to be licensed as a scrap processor by submitting an application to the agency. The applicant must demonstrate that he owns or has access to a hydraulic bailer, shears, shredder or other equipment capable of converting a large volume of scrap metal to a more usable form. The licensee shall also keep records. Such records shall be subject to review by the site operator and the agency. No person shall possess, process, employ or use abandoned motor vehicles which have been reduced by open burning or incineration unless the incinerator used in the reduction is subject to an agency permit.

XVII(E) Mine Drainage Control

(1) If, upon investigation, the agency finds a coal mine operating in violation of one or more of the provisions of the mine drainage permit, the agency may issue a notice informing the permittee of the nature and the extent of his permit violations and advising him that unless the violations PA(b)

are removed by a specified date, the case will be referred for suspension or revocation of the drainage permit and whatever other action as the agency may see fit to take.

(2) Monthly operation reports shall be submitted to the agency in all cases in which treatment is applied to the discharge and for those operations where the combined flow from the mine exceeds an average daily discharge rate of 50 gallons per minute.

   (a) The permittee shall furnish the following information:

      (i) Rate of discharge, for each day during the preceding month;
      (ii) Analysis of final effluent of one day within each week during the preceding month.

   (b) Mine discharges shall be limited.

      (i) Acid. There shall be no discharge of mine drainage which is acid.
      (ii) Iron. There shall be no discharge of mine drainage containing a concentration of iron in excess of seven milligrams per liter.
      (iii) pH. The pH of discharges of mine drainage shall be maintained between 6.0 and 9.0.

(3) In those cases in which the proposed discharge would be to an already polluted or unclean stream, or to an insignificant clean stream not devoted to public use and which in turn flows into a polluted stream, the agency may grant a permit subject to appropriate conditions and limitations.

(4) In those cases in which the proposed drainage would be into a clean stream and there is no evidence that the drainage will be acid, the agency may, unless there is presumptive evidence of potential pollution of the waters of this State, grant a permit subject to the appropriate conditions. In those cases in which the proposed discharge would be to a polluted or unclean stream which in turn flows into a clean stream, the agency may issue a permit for mine drainage.

(5) Surface water which might otherwise drain into the stripping pit shall be effectively intercepted on the uphill side of the high wall by suitable and adequate diversion ditches and conveyed by adequate channels or other suitable means for discharge to natural water courses outside the entire stripping operation.

XVII(F) Control Over Confined Animal Feeding

(1) A person constructing or commencing to operate a confined feeding or holding operation or waste control facility, or substantially modifying or expanding an existing confined feeding and holding operation or waste-control facility shall first submit detailed plans and specifications for said facility and operation and other necessary information to the agency and obtain approval of the proposed facility and operation from the agency in writing. OR(b)

(2) All waste control facilities and confined feeding and holding operations shall be designed, constructed, maintained, and operated in accordance with the following:

   (a) All confinement areas, manure handling and accumulation areas and disposal areas and facilities shall be located, constructed, and operated such that manure contaminated drainage waters or other wastes do not enter the waters of the State at any time.

(b) Unless it can be demonstrated that contaminated drainage can be effectively controlled by other means, or unless a specific written variance is obtained, the design, construction, operation and maintenance of confined feeding and holding operations and waste control facilities shall be in conformance with the State's guidelines.

(3) The agency may by specific written variance waive certain requirements of these regulations when size of operation, location and topography, operational procedure, or other special conditions indicate that the purpose of these regulations can be achieved without strict adherence to all of the requirements.

- The agency may, in accordance with a specific compliance schedule, grant reasonable time for existing confined feeding or holding operations to comply with these regulations.

(4) Roof drainage and uncontaminated surface drainage should be diverted such that it is not allowed to flow through confinement areas or enter waste water holding lagoons, sumps or tanks.

(a) Where large winter use confinement areas are exposed to heavy rainfall, and wastewater storage and disposal capacities are limited, such areas should be covered to minimize waste water volume.

(b) Waste collection systems utilizing water for flushing manure from floors should minimize water use, and washwater reuse practices should be employed wherever possible.

(c) Animal drinking water and atmospheric control sprays should be managed such that drainage through contaminated areas is minimized.

XVII(G) Preservation of Wetlands

(1) Any person proposing to conduct any activity (e.g. the depositing of residual wastes) regulated under this Act upon any inventoried tidal wetland shall file an application for a permit with the agency. The applicant shall have the burden of demonstrating that the proposed activity will be in complete accord with provisions of this Act. Such application shall include a detailed description of the proposed work and a map showing the area of tidal wetland directly affected, with the location of the proposed use thereon, together with the names of the owners of record of adjacent lands. NY(b)

(2) No sooner than thirty days and not later than sixty days after the receipt of such application, the agency shall hold a public hearing on such application at a suitable location in the county where the affected wetland is situated. At such hearing any person or persons may appear and be heard.

(3) In granting, denying or limiting any permit under this act, the agency shall consider the compatibility of the proposed activity with reference to the public health and welfare, marine fisheries, shell fisheries, wildlife, flood and hurricane and storm dangers, and the land-use regulations.

(4) The agency may impose such conditions or limitations as may be necessary to protect the wetlands of this State. The agency may require a bond, and require conditions to be met in order to secure to the state compliance with the permit. The agency may suspend or revoke a permit if it finds that the permittee has not complied with any of the conditions or limitations set forth in the permit or has exceeded the scope of the permit. The agency may suspend the permit if the permittee fails to comply with the terms and conditions of the permit.

XVII(H) Use of Waste Disposal Wells

(1) Permits for construction, modification, maintenance or use of waste disposal wells may be issued only in those designated geographical areas for which a city, county or district, legally authorized to provide sewage services for the area, complies with the following conditions: OR(b)

(a) Maintains on file with the sanitary authority a currently approved sewage program including a plan and time schedule for providing collection, treatment and disposal of wastes.

(b) The time schedule must be designed to provide an approved sewage system within the shortest time possible and unless it can be demonstrated to be non-feasible shall at least comply with the minimum agency standards.

(2) Permits shall not be issued for construction, maintenance or use of waste disposal wells where any other treatment or disposal method which affords better protection of public health or water resources is reasonably available or possible.

(3) Permits for construction or use of waste disposal wells issued by an approved permit issuing agency shall include, in addition to other reasonable provisions, minimum conditions relating to their location, construction, or use and a time limit for authorized use of said waste disposal wells, not to exceed a period of five years. Construction and orientation of building sewers shall be compatible with the approved area sewage plan.

(4) A waste disposal well upon discontinuance of use or abandonment shall immediately be rendered completely inoperable by plugging and sealing the hole to prevent the well from being a channel allowing the vertical movement of water and a possible source of contamination of the ground water supply.

(a) All portions of the well which are surrounded by "solid wall" formation shall be plugged and filled with cement grout or concrete.

(b) The top portion of the well must be effectively sealed with cement grout or concrete to a depth of at least 18 feet below the surface of the ground.

XVII(I) Requirements for the Disposition of Dredge Spoil*

(1) Dredging is the removal of earth from the bottom of a stream, river, lake, bay or other water body for the purposes of deepening a navigational channel or to obtain use of the bottom materials for landfill. A significant portion of all dredged materials are deposited either in the water or immediately adjacent to it, often resulting in problems of water quality. WA(c)

(a) Local governments should control dredging to minimize damage to existing ecological values and natural resources of both the area to be dredged and the area for deposit of dredged materials.

(b) Local master programs must include long-range plans for the deposit and use of spoils on land. Spoil deposit sites in water areas should also be identified by local government in cooperation with the state departments of natural resources, game and fisheries. Depositing of dredge material in water areas should be allowed only for habitat improvement, to correct problems of material distribution affecting adversely fish and shellfish resources, or where the alternatives of depositing material on land is more detrimental to shoreline resources than depositing it in water areas.

(c) Dredging of bottom materials for the single purpose of obtaining fill material should be discouraged.

*Most states use permit requirements to proscribe deleterious effects upon water quality because of the deposition of dredge spoil.

XVII(j) Regulation of Waste Piles

(1) A detailed design plan and plan of operation shall be submitted that provides for the prevention of water pollution. PA(b)

(a) The plan shall set forth information pertinent to insure compliance with agency regulations applicable to water quality criteria and water pollution control.

(b) Runoff from the top of disposal piles shall not be allowed to discharge freely onto the surrounding area. Diversion facilities shall be constructed to control the flow of this runoff. The top of the pile shall be graded with shallow slopes falling away from the edge to concentrate the runoff in these diversion facilities. Water runoff from the adjacent area shall be directed away from the refuse piles.

(c) Construction of any necessary wastewater treatment facilities shall be done pursuant to a water quality management permit from the agency.

(d) Provision shall be made to minimize that portion of the disposal pile that will remain exposed to precipitation at any time, and adequate cover material, both of type and quantity, shall be available.

(e) The following requirements must be met to insure the stability of the disposal area.

(i) A minimum clear space of 50 feet shall be provided from the outer perimeter of any disposal pile unless otherwise approved by the agency.

(ii) Slopes of the disposal piles shall not exceed 15 percent or 9 degrees. The maximum slope, with agency approval, shall not exceed thirty-three (33) percent or 18 degrees.

(iii) The height of disposal piles shall be limited and other measures shall be taken as necessary to insure the stability of the slopes.

(f) Assurance shall be provided to prevent erosion of the disposal area. Such assurance shall include planting of side slopes and the final top layer with quick growing vegetation and with trees and shrubs.

- Any construction or other activity which disturbs the surface of the land shall comply with the agency's erosion and sediment control rules.

(Alternative)

(1) All animal manure shall be stored in such a manner as to prevent the creation of a potential pollution hazard to waters of the State. *MN(f)*

(a) All storage areas shall be designed so as to restrict seepage, percolation or other movement of animal manure to ground waters.
(b) All storage areas shall be surrounded by a dike, wall or curb of such dimensions or construction that will prevent the entrance of runoff from outside areas.
(c) All storage areas shall be sloped so that draining liquids can be collected and discharged from the area at one or more controlled discharge points.
(d) All storage areas shall be located so as not to pose a potential pollution hazard to local wells or sources of potable water and shall be located at least 100 feet from such wells or water sources.

XVII(K) Litter Control Considerations - Model(b)

An anti-litter provision may be as uncomplicated as the section shown below, that is excerpted from the Suggested Solid Waste Management Ordinance for Local Government (March, 1974, EPA, SW-73d), or as truly comprehensive as the model proposed by the National Institute of Municipal Law Officers (NIMLO), which is referenced in Chapter 3. The choice must be made on the basis of the seriousness of the litter problem in each community, and the level of enforcement resources that a community is willing to commit to solving that problem.

The simplest possible provision reads as follows:

> Littering: It shall be unlawful to place, or allow to be placed, any solid waste upon the roads, streets, public or private property within this municipality contrary to the provisions of this ordinance.
> Comment: Proper solid waste management requires regulated disposal. This section and section 25.08, prohibiting dumps, are intended to eliminate litter and promiscuous dumping.

XVII(L) Summary of Criteria for Land Application of Sludge to Farm Land

(1-9 ARE THE RECOMMENDATIONS TAKEN FROM THE ILLINOIS ADVISORY COMMITTEE ON SLUDGE AND WASTEWATER UTILIZATION ON AGRICULTURAL LAND, FEBRUARY, 1975)

(1) It is the intent of this Act that the digested sludge shall be processed to a point where stability is reached. This stability is the ability of the digested sludge to resist further change and is accomplished by the substantial reduction of the volatile content.

(2) The cumulative sludge applied shall not exceed 100 dry tons or 100 pounds of cadmium per acre, whichever cumulative loading is achieved first. The annual application shall not exceed the nitrogen agronomic rate.

(3) Sludge may be surface applied to land not in excess of five percent slope or land which does not have over five tons/acre/year soil loss.

(4) Sludge may be injected or incorporated on lands having slopes up to eight percent, irrespective of soil loss. If the slope exceeds eight percent, either application method may be used so long as the annual soil loss does not exceed five tons per acre.

(5) Sludge shall be applied so as not to exceed nitrogen application rates as established by the agency.

(6) It is not recommended that sludge be applied in grass waterways. Application to flood plains having a ten year or less frequency will occur only after approval by the agency.

(7) For soils having the following infiltration rates/hour, the listed minimum soil depth to the mean annual water table shall be adhered to:

    (a) 2 - 20 inches/hour - ten feet
    (b) 2 - .2 inches/hour - five feet
    (c) less than .2 inches/hour - three feet

(8) Sludge shall not be applied within 150 feet of any water well.

(9) Hard and fast rules for the control of odor cannot be formulated for all situations because of the multi-varied complexity of the problem.

SECTION XVIII
REPEALER*

Repeals: These rules and regulations replace and supersede rules and regulations for Refuse Disposal Sites and Facilities, adopted by the Illinois Department of Public Health on March 22, 1966 and continuing in effect pursuant to section 49(c) of the Environmental Protection Act "until repealed, amended or superseded by regulations under this act," except that any proceeding arising from any occurrence happening prior to the applicable provision of these rules and regulations shall be governed by the above described Rules. IL(b)

* Complete cite of the Illinois Statute

SECTION XIX
SEVERABILITY

Severability: If any provision of this Act, or its application to any person or circumstance is held invalid, the remainder of the Act, or the application of the provisions to other persons or circumstances is not affected. WA(a)

SECTION XX
SAVING CLAUSE

Saving Clause: Nothing in this Act shall be deemed to affect, modify, amend or repeal any provision of any act administered by any other department, board, commission or agency of this State. PA(a)

SECTION XXI
EFFECTIVE DATE

Effective Date: This Act is an emergency health act and shall take effect immediately. PA(a)

REFERENCES - CHAPTER IV

The following list of the models and the laws and regulations of selected states, includes all the legislation studied and comprises the citations to identify the supplementary legislation presented in Chapter IV.

MODELS

(a) The Model - State Solid Waste Management and Resource Recovery Incentives Act, developed by The Council of State Governments, Lexington, Kentucky (1973).

(b) Suggested Solid Waste Management Ordinance for Local Governments, U. S. Environmental Proteciton Agency, March 1974.

1. Alabama (AL)

(a) Code on Alabama Title 22 §§346-351
Alabama Solid Waste Disposal Act 1969 (Amended 1971).

(b) Alabama Solid Waste Management Regulations (1972)
§§ I - XVI.

(c) Alabama Standards for Disposal of Solid Wastes (1969) (No §§ numbers).

2. California (CA)

(a) California Government Code Title 7.3 §§ 66700-66793 Nejedly-Ziberg-Dills Solid Waste Management and Resource Recovery Act of 1972.

(b) California Health and Safety Code §§ 25100-25185 Hazardous Waste Control (1973).

(c) California Administrative Code (CAC) Title 14, Div. 7, Ch. 2 & 3 §§ 17100-17751 Planning Guidelines for the Preparation of Solid Waste Management Plans, and Minimum Standards for Solid Waste Handling and Disposal.

(d) CAC Title 22 Art. 5, Ch. 2 §§ 60001-60180 Hazardous Waste Regulations (1974).

(e) CAC Title 23 C-. 3, Subchatper 15 §§ 2500-2552 Waste Discharge Requirements for Waste Disposal to Land (1972).

(f) State Water Resources Control Board, Waste Discharge Requirements for Waste Disposal to Land, October 1974, Disposal Site Design and Operation Information.

(g) California Department of Health, Law, Regulations and Guidelines for the Handling of Hazardous Waste, February, 1975.

(h) California Water Code Ch. 5, Art. 6 §13351.

3. Colorado

   (a) Colorado Revised Statutes Ch. 36, Art. 23 §§ 36-23-1-36-25-19 Solid Waste Disposal Sites and Facilities (1971).

   (b) Solid Waste Disposal Sites and Facilities - Regulations §§ 1-8 Colorado State Board of Health (1972).

   (c) Colorado revised statutes Ch. 24, Art. 65 §§24-65-101 to 24-65-105, Colorado Land Use Act (1973).

4. Connecticut

   (a) Connecticut General Statutes (CGS) Ch. 361a §§ 19-524a-19-5240 Solid Waste Management (1970).

   (b) CGS Ch. 361b §§ 19-524p - 19524nn Connecticut Solid Waste Management Services Act (1973).

   (c) Connecticut State Agencies Regulations §§ 19-524-1 - 19-524-12 Solid Waste Management Regulations (1975).

5. Illinois (IL)

   (a) Illinois Revised Statutes Ch. 111½ §§ 1001-1051 esp. §§ 1020-1022 Environmental Protection Act (Title 5 land pollution and refuse disposal) (1970).

   (b) Illinois Solid Waste Rules and Regulations Ch. 7, Pt. 1-2 §§ 101-318, Illinois Pollution Control Board (1973).

6. Minnesota (MN)

   (a) Minnesota Statutes (M.S.) Ch. 116 §§ 116.01-116.41 Pollution Control Agency (1969, Amend. 1974).

   (b) M.S. Ch. 116F-01-116F.08 Recycling of Solid Wastes (1973).

   (c) M.S. Ch. 1683 §§ 1683.01-1683.13 Abandoned Motor Vehicles (1971).

   (d) M.S. Ch. 400 §§ 400.01-400.17 Solid Waste Management (1971, Amend. 1974).

   (e) M.S. Ch. 473D §§ 473D.01-473D.07 Metropolitan Solid Waste Disposal.

   (f) Minnesota Administrative Rules and Regulations §§ SW1-83 Minnesota Pollution Control Agency - Division of Solid Waste.

7. New Jersey (NJ)

   (a) New Jersey Statutes Annotated (N.J.S.A.) Ch. 39 Laws of 1970 §§ 13:1E-1 - 13:1E-15 Solid Waste Management Act.

   (b) N.J.S.A. Ch. 40 Laws of 1970 §§ 48:13A-1 - 48:13A-13 Solid Waste Utility Control Act.

   (c) N.J.S.A. Ch. 363 Laws of 1973 §§ 1-9 New Jersey Waste Control Act.

   (d) N.J.S.A. Title 39 Ch. 11 §§ 39:11-1 - 39:11-11 New Jersey Motor Vehicle Junk Law.

   (e) New Jersey Administrative Code §§ 7:26-1.1 - 7:26-4.9 Rules of the Bureau of Solid Waste Management.

8. New York (NY)

   (a) New York Codes Title 27 §§ 27-0101-17-0511 Collection, Treatment and Disposal of Refuse and Other Solid Waste (1971).

   (b) New York State Compilation of Rules and Regulations Title 16 Pts. 360, 362, 363 and Pt. 628 §§ 360.1-360.3, 362.1-362.10, 363.1-363.12, 628.1-628.6.

9. Oklahoma (OK)

   (a) Oklahoma Statutes Title 63 §§ 2251-1165 Oklahoma Solid Waste Management Act of 1970.

   (b) Rules and Regulations Adopted by the State Board of Health §§ 1.0-7.5 Rules and Regulations for the Collection and Disposal of Solid Wastes and Setting Standards for Sanitary Landfills (1971, Amend. 1973).

10. Oregon (OR)

   (a) Oregon Revised Statutes Ch. 459 §§ 459.005-459.995 Solid Waste Control (1971).

   (b) Oregon Administrative Rules Ch. 340 Division 1 Subdivisions 1, 2, 4 §§ 11-005-11-135, 12-005-12-075, 14-005-14-050
   Division 5 Subdivision 1 §§ 51-005-51-080
   Division 6 Subdivisions 1,2 §§ 61-005-61-085, 62-005-62-045
   Division 7 Subdivisions 1, 2,3, 4 §§ 71-005-74-020
   Division 8 Subdivision 2 §§ 82-005-82-055.

11. Pennsylvania (PA)

   (a) Pennsylvania Statutes §§ 6001-6017 Solid Waste Management Act (1968, Amend. 1970 and 1972).

   (b) Rules and Regulation Department of Environmental/Resources Title 25, Pt. 1, Subpart C. Art. 1, Ch. 75 §§ 75.1-75.236 (1971); Ch. 76 §§ 76.1-76.52 (1974); Ch. 99 §§99.1-99.40; Ch. 100 §§ 100.1 - 100.104 (1973); Ch. 125 §§ 125.1-125.104 (1973).

12. Washington (WA)

   (a) Revised Code of Washington Ch. 70.95 §§ 70.95.010-70.95.910 Solid Waste Management (1969).

CHAPTER V

COMPARISON OF RESIDUAL WASTE MANAGEMENT LAWS AND RATIONALE FOR INCLUSION IN THE MODEL LEGISLATION

5.1 Criteria for Selection of Provisions

5.1.1 "Effectiveness" of Residual Waste Management Laws

The initial intent of this research project was to select those laws and regulations from a 12 State sample, that have proven to be effective in areawide management of residual wastes, and combine them into a model statute for use by Section 208 Planners. This implies that a given provision of one State's law is more effective than similar provisions being used by other States. Selection on that basis did not prove to be practical for a number of reasons, the most significant of which is that the effectiveness of a given law or regulation is dependent upon more than just the clarity and comprehensiveness of the official text.

In the course of interviewing waste management officials in the twelve state sample, it was determined that the effectiveness of a waste management system is dependent upon the application of available resources and the active support given by the executive branch of state government. Additional strength is created through the enactments of the legislature which express a strong state policy to protect water resources from all forms of waste deposited on or in land. A strongly worded statute will provide little impetus to the waste management system if the executive branch does not request, and if the legislature does not appropriate, the requisite funds to support research, facilities, technical assistance and enforcement. All are necessary elements of an operative and effective regional or local waste management program.

At least one of the waste management officials interviewed indicated that he didn't need any more laws, but did the personnel to enforce the laws that he already had. Another official indicated that the overall effectiveness of waste management was improved with a modest increase in staff, accompanied by a massive infusion of new interest exhibited by higher level officials of the State.

There seems little doubt that other factors, such as the strength of personality of the senior waste management person, an ability to win "turf battles" with county or other State agencies, and the political strength of the public and private interests which may be resisting further regulation. all have an effect on the real utility of the existing laws of the sample States.

5.1.2 General Rules for Selection of Materials for Inclusion in Model Law

Upon completion of the "check list" of problems for which legislation would probably be required, a review was made of the residual waste management laws and regulations of all the States in the sample. These were sorted down by subject area and those that appeared (on the surface) to provide the most adequate coverage were selected for discussion with State officials. In many instances, the essence of the enactments were the same, although the language used by each State was different. In this situation, the selection was made on the basis of brevity or conciseness of the competing provisions. Where the subject area was slightly different, the separate enactment of two or more States are included in the model as alternatives. In some subject areas, only a few of the States have legislation in force (hazardous waste management) and the selection was made on the basis of State officials comments regarding its effectiveness and the comprehensiveness of the text. A number of special problem areas are treated in the model, and the factors considered in selecting one State's provision over that of another State are presented in the following sections.

5.1.3 A Matrix Comparison of Specific Provisions of State Laws

The salient characteristics of the laws of the 12 sample States are shown on Exhibit 2 on the following pages. The ratings used refer only to the adequacy of the text of the laws and regulations, and not to the actual effectiveness of these provisions in the respective States. As was suggested in the opening paragraph of this chapter, there is much more to effectiveness than the text of the law. A simple provision such as "Permits will be obtained for disposal of all wastes that may have an adverse effect on water quality," if backed by an adequate staff to thoroughly investigate all permit applications and prosecute all who dispose of wastes without a permit, might be an effective law.

EXHIBIT "2"

STATE	DEFINITION OF SOLID WASTE INCLUDES SLUDGE	STATES' DEFINITIONS OF SOLID WASTE
ALABAMA	NO	Solid Wastes: All putrescible and non-putrescible discarded materials (except household sewage and livestock and poultry wastes) including but not limited to garbage, rubbish, ashes, street and highway cleanings, dead animals including offal, abandoned automobiles, and such industrial wastes as are not controlled by other agencies.
CALIFORNIA	YES	"Solid waste" means all putrescible and non-putrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wates.
COLORADO	YES	"Solid wastes" means garbage, refuse, sludge of sewage disposal plants, and other discarded solid materials, including solid waste materials resulting from industrial, commercial and from community activities, but shall not include agricultural wastes.
CONNECTICUT	NO	"Solid waste" means useless, unwanted or discarded solid materials, not excluding semisolid and liquid materials other than sewage collected and treated in a municipal sewerage system, but shall not include scrap materials held for reuse or resale by a scrap material dealer.
ILLINOIS	YES	Solid waste - refuse. (Refuse is defined as "garbage or other discarded material.)
MINNESOTA	NO	"Solid waste" is garbage, refuse and other discarded solid materials, except animal waste used as fertilizer, including solid waste material resulting from industrial, commercial and agricultural operations, & from community activities. Solid waste does not include earthen fill, boulders, rock and other materials normally handled in construction operations, solid or dissolved materials in domestic sewage.
NEW JERSEY	YES	"Solid waste" means garbage, refuse, and other discarded materials from industrial, commercial and agricultural operations, and from domestic and community activities,and shall include all other waste materials including liquids disposed or incident thereto except it shall not include solid animal and vegetable wastes collected by swine producers licensed to feed such wastes to swine on their own farms.
NEW YORK	NO	"Solid waste" means materials or substances discarded or rejected as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, except sewage and other highly diluted water carried materials or substances and those in gaseous form.
OKLAHOMA	YES	"Solid waste" means all putrescible and non-putrescible refuse in solid or semisolid form including, but not limited to,garbage,rubbish, ashes or incinerator residue,street refuse,dead animals,demolition wastes,construction wates,solid or semisolid commercial and industrial wastes and hazardous wastes including explosives, pathological wastes, herbicide and pesticide wastes.
OREGON	YES	"Solid waste" means all putrescible and non-putrescible wastes, including but not limited to garbage,rubbish,refuse,ashes,waste paper & cardboard;sewage sludge,septic tank & cesspool pumpings or other sludge;commercial,industrial,demolition & construction wastes;discarded or abandoned vehicles or parts thereof;discarded home & industrial appliances.manure,vegetable, animal solid & semisolid wastes.
PENNSYLVANIA	YES	Solid waste - Garbage, refuse and other discarded materials including but not limited to solid and liquid waste materials resulting from industrial, commercial, agriculture and residential activities.
WASHINGTON	YES	"Solid waste" is all putrescible and nonputrescible solid and semisolid wastes, including garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and discarded commodities.

POWERS AND DUTIES, STATE AGENCY

AL	Accomplishment of SW management shall be under direction of Health Department. There is nothing to limit authority of municipal, county or district governments or health departments. Calif. Health Department controls the regulation of hazardous waste).
CA	Within the Resources Agency there is the State Solid Waste Management Board who shall formulate and adopt state policy for solid waste management (The Board shall consider the recommendations of the State Air Resources Board and the State Water Resources Control Board
CO	The Colorado Land Use Commission is established to carry out act's purpose. The Commission is authorized to develop resolutions regarding land use planning to serve as guidelines for county planning commissions and to direct the final land use planning program.
CT	The Connecticut Resources Recovery authority is established to direct the design, construction, financing, planning, management, ownership, operation and maintenance of solid waste disposal.
IL	An Environmental Protection Agency is established to direct the Solid Waste management program, through technical assistance, planning, and establishment of criteria.
MN	The Pollution Control Agency is established with overall authority to direct solid waste management including approving plans and specifications for disposal systems.
NJ	The Department of Environmental Protection is charged with the duty to develop and formulate a state-wide SW management plan and guidelines to implement the plan.
NY	The Department of Environmental Conservation is established to enforce SW management. Its duties include approving the area and scope of any comprehensive study prior to its execution.
OK	The Board of Health is directed to develop a state-wide solid wastes management plan in cooperation with municipal and county governments.
OR	The Department of Environmental Quality shall provide administration, enforcement and implementation of Solid Waste Management plans and practices.
PA	The Department of Environmental Resources shall have the responsibility to establish and maintain a cooperative state and local program of planning and technical and financial assistance for comprehensive solid waste management.
WA	The Department of Ecology shall be charged with the management of a comprehensive state-wide program for solid waste management.

JUDICIAL & ADMINISTRATIVE PROCEEDINGS	SITE CLOSURE
Probably covered in the State's Administrative Procedures Act.	Dump closing requirements.
Public hearings; SW Management bd. acts as review and appeals agency. Judicial review to courts of general jurisdiction.	When problems result in environmental degradation or public health hazards, the owner shall notify the enforcement agency. The owner shall monitor for problems and promptly repair for at least 5 years.
Reasonable notice and public hearing.	County commissions shall be informed 60 days in advance of such closing.
Denial, revocation or modification shall set forth reasons. Complaint may be filed by any aggrieved party.	Commissioner must be notified of intention to close site within at least 30 days prior to closing.
For judicial review petition must be timely. Party adversely affected may petition board.	The operator of a sanitary landfill site shall monitor gas, water, and settling at the completed site for a period of 3 years after completion of site. Detailed description of site shall be filed with recorder.
With revocation of a permit, affected party must be informed in writing by county of reasons for denial. Dept holds hearing in accord with Administrative Procedure Act. Records must be kept.	Inspection and maintenance.
Board may do what is necessary to enable it to administer its duties.	State Department of Environmental Protection shall be notified at least 30 days prior to intended date of discontinuance.
Notice of hearings shall be given at least 30 days prior. Opportunity to be heard shall be given to the public. Aggrieved party may within 30 days from commissioner's order seek judicial review pursuant to article 78 of the civil practice law.	Inspection and maintenance.
Public hearings held. Applicant for permit must be present at hearings. Testimony at hearing shall be recorded.	Site operator must have on file with State Department of Health a $100,000 security bond guaranteeing that the permitee has the resources to properly close the site.
Notice must be afforded in a manner REASONABLY CALCULATED to notify affected person. If Health Division recommends against granting license, the commission must refuse to issue license. Judicial review available.	Inspection and maintenance.
Department ORDER must be specific. Aggreived party has right of appeal. Hearing held within 15 days when permit denied, suspended or revoked.	Monitoring of site shall continue for 3 years after site is completed or closed.
A hearing shall be granted upon a denial or suspension of a permit within 30 days after the request therefor is made.	Recurrent inspection and maintenance.

	CLASSES OF WASTE MATERIALS	CLASSES OF DISPOSAL SITES
AL	Specifically addresses certain types of waste i.e. pesticide containers, infectious wastes, certain industrial, septic tank pumpings, tree stumps, logs and demolition wastes, but no classification system.	No Classes
CA	Water Resources Board divides wastes into 3 groups depending on toxicity or possible damage to usable waters. Dept. of Health regulates hazardous wastes & has developed two groups, i.e., hazardous and extremely hazardous.	Water Resources Board divides land and all sites into 3 classes depending on types of wastes acceptable at each Class I,II, & III.
CO	No Classes	No Classes
CT	No Classes	No Classes
IL	Hazardous wastes and sludges need special disposal permit but no other segregation of wastes.	No Classes
MN	Special disposal regulations apply to toxic or hazardous wastes and animal wastes.	No Classes
NJ	Special disposal regulations apply to sewage sludge, septic tank and catch basin wastes, bulky wastes, pesticides, hazardous chemicals and infectious wastes.	No Classes
NY	No Classes	No Classes
OK	Special disposal regulations for hazardous wastes, highly putrescible sewage solids or liquids, large bulky items.	No Classes
OR	Special disposal required for large dead animals, sewage sludges, septic tank pumpings, hospital wastes and other hazardous waste.	No Classes
PA	Special disposal regulations for sewage sludges and solids, hazardous wastes and bulky items.	No Classes
VA	No Classes	No Classes

PLANNING STATE-WIDE AREA-WIDE,LOCAL	COMPLAINCE/ ENFORCEMENT AGENCY	AREA-WIDE MUNICIPAL AUTHORITY-MANAGEMENT	PERMITS
Comprehensive	Health Department Action	Local autonomy-county governing body or municipal governing body.	Adequate
Comprehensive	Solid Waste Management Board Action	Area-wide cooperation mandated	Comprehensive
Adequate	Departmental Action	Area-wide cooperation mandated - Inter governmental cooperation	Adequate
Comprehensive	Action by Commissioner of Public Health	Area-wide cooperation mandated	Adequate
Comprehensive	Agency Action	Limited Local Authority	Comprehensive
Adequate	Agency Action	Area-wide cooperation mandated (Metropolitan counties comprehensive planning mandated)	Comprehensive
Marginally Adequate	Departmental Action	Limited Local Authority	Marginally Adequate
Marginally Adequate	Departmental Action	Limited Local Authority	Marginally Adequate
Adequate	Departmental Action	Limited Local Authority Locals encourated to enter into agreement with one another	Adequate
Adequate	Commission takes appropriate action	Area-wide cooperation mandated - Locals regulations may not conflict with one another	Adequate
Comprehensive	Action by Deputy for Enforcement	Area-wide cooperation mandated - plans shall be reviewed by appropriate planning agencies with areawide jurisdiction	Comprehensive
Comprehensive	Jurisdictional Health Dept. Action	Limited local autonomy - each county in cooperation with cities shall prepare a coordinated plan	Adequate

	HAZARDOUS WASTES	ENFORCEMENT/PENALTIES
AL	Has Provision	No person or agency shall violate any of the provisions of these rules and regulations. Violator shall be guilty of a misdemeanor and fine shall not be less than $5 nor more than $100.
CA	Has Provision	Any person who willfully or negligently operates a transfer/processing station or disposal site, or both, without a permit or not in conformance with the permit is guilty of a misdemeanor. Each day of such operation shall constitute a separate offense.
CO	Has Provision	Violators shall be deemed guilty of misdemeanor fine of $100 or maximum of 30 days imprisonment, or both.
CT	No Provision	Violators shall be served with a written order specifying the nature of the violation. Unless a written answer is served on the commission within the time stated in the order, such order shall stand.
IL	Has Provision	Violators shall be liable to a civil penalty of not to exceed $10,000 for said violation and additional civil penalty of not to exceed $1000 for each day during which violation continues.
MN	Has Provision	Criminal and civil penalties for willful or negligent operations.
NJ	No Provision	Violators shall be liable to a penalty not more than $1000 per day to be collected in a civil action.
NY	No Provision	Violator shall be guilty of a misdemeanor and punishable by a fine not to exceed $1000 for each violation. Each separate transportation or disposal act shall constitute a separate violation.
OK	Has Provision	Criminal and civil penalties for intentional and negligent activities.
OR	Has Provision	Penalty not less than $100 nor more than $500 for violation and not less than $50 nor more than $500 for contributory violation. Additional civil penalities and also criminal penalties.
PA	Has Provision	One convicted of violation shall be fine not more than $300 in default of payment, or imprisonment for not more than 30 days. Violation of separate days shall be considered distinct offenses.
WA	Has Provision	Nothing in this act shall abridge rights of action or remedies in equity under common law. both criminal and civil

Such an investigation of "effectiveness" was not conducted as part of this study and the comments regarding each State's law, on Exhibit 2, refer only to the comprehensiveness of each portion of the State's published statutes and regulations, by comparison with the other States in the sample.

5.2 Basis for Inclusion of Sections Selected for the Model

5.2.1 Section IV(A), Administration of the Act*

The suggested provision is from the Council of State Governments model (COSG), with supplementary provisions from Colorado, California and Alabama, and a complete alternate provision from Illinois. One of the principal considerations in selecting laws for the model is the concern that the State has shown for a comprehensive, areawide approach to waste management. Few individual municipalities can economically implement new programs without taking into the system the other governmental units which will be affected by the areawide waste program.

The provision from the COSG model is used because it directly and simply sets out the typical responsibilities of a residual waste management agency. Colorado's provision is included because areawide waste management in that state is approached from a pure land use standpoint and is concerned with more than water quality or simply the disposal of waste. This approach is holistic and is directed to an areawide, integrated program. Illinois' method of administration of residual waste is also shown as an alternative. The California and Alabama provisions emphasize an areawide approach to waste management with local governmental units retaining control in specific areas. They must still act in a manner consistent with the State plan.

5.2.2 Section IV(B), Technical Assistance

Most of the states have recognized that technical assistance to local planning bodies is indispensable. California has expressed a strong policy that municipalities and counties must be provided with such technical expertise. The California legislation enables the State agencies responsible for residual waste management to establish guidelines for counties and to furnish the technical assistance necessary to implement the plans. The

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*Note: Where a State Solid Waste provision has been adopted for inclusion in this document, the word residual is substituted for the word solid where it appeared in the State's Statute.

California provision is used because it requires agency approval of local plans and subsequent conformity to the approved plan. The Minnesota provision is included because it is the only State in the sample providing assistance to industry in source reduction through the promotion of less bulky packaging and the prohibition of packaging that is harmful to the environment.

5.2.3 Section V, Planning (Statewide, Areawide and Local)

A number of States in the sample have a law requiring that waste management plans be submitted to the State on a county or areawide basis. The Pennsylvania law has been in existence the longest and was selected on that basis. The California law is also very comprehensive and portions of it are included. In Pennsylvania, State participation in residual waste management resulted in an areawide approach from the outset. The Pennsylvania provision is included here because it is typical of those State acts that demand that all waste management plans be submitted by local governments to the State agency for approval. It also recognizes that one municipality may not possess adequate resources or financing to submit plans, so a provision is made for municipalities to submit joint plans. Pennsylvania's statute requires that, upon approval of a management plan, the plan be implemented. To back up this comprehensive program of planning and implementation, the agency is vested with enforcement authority. California and Washington have implemented comprehensive planning, requiring local planning to take notice of the general plan and to be compatible with that plan.

5.2.4 Section VI, Responsibilities and Duties of the Enforcement Agency

Every state in the sample had good enforcement provisions. The COSG Model provision is a very direct, compact way of establishing an agency's ability to enforce environmental legislation. This provision describes the agency procedures which commence with preparation of rules and culminate with institution of judicial action. The California, Illinois and Oregon provisions are combined with the COSG provision to offer a more comprehensive enforcement scheme.

California has a unique and effective provision for securing injunctive relief, i.e. to receive such relief it is not necessary to meet the traditional requirements of irreparable injury or an inadequate remedy at law. California has thus demonstrated a very strong interest in protection of water resources.

The Alternative Section makes provision for the agency to institute a proceeding at law and in equity when the violation creates a need for immediate action. It further enables the agency to act in a summary fashion, (without the need of a prior administrative proceeding), when the occasion demands.

5.2.5 Section VII. Operations and Financing of Areawide Plans

The best method of financing planning is the one that works best in each State. The Model reflects Pennsylvania's approach to appropriate funds to pay a fixed percentage of each localities' total cost. This provides an incentive to do the planning but assures that the local governments have a stake in the venture. The alternatives listed include State grants, the levying of taxes and the issuance of bonds as methods of financing.

5.2.6 Section VIII(A) Areawide Municipal Authority

Along with the emphasis upon the establishment of a comprehensive plan, the form of intra-municipal authority is also addressed. Again, although Pennsylvania's direction is toward compatibility with a general plan, it recognizes the need for and encourages local governmental units to develop waste management services within its boundaries. The Oklahoma legislation adds greater definition to local waste management plans.

5.2.7 Section VIII(B) Eminent Domain, Zoning and Preemption

How to site, where to site, and who has the authority to site, are all questions of importance when implementing a waste management plan. The States and local governments have varying procedures for exercising their authority regarding eminent domain and zoning. Oregon and Connecticut were selected as representing a sound approach in exercising those governmental powers, and in meeting constitutional safeguards.

The States in the sample have taken quite diverse positions on the questions of preemption of local zoning laws. Connecticut, who's law is used in the Model, does not permit preemption; the land acquired by eminent domain may only be used for a disposal activity if the zoning, at the time of condemnation, will allow such use. Minnesota and Illinois, among other states, permit even condemned land to be used for waste disposal activities, on a proper showing of necessity, irrespective of existing zoning. The waste management officials contacted in the course of this research, are almost unanimously agreed that preemption is required to satisfy current and future demand for "close-in" disposal facilities. The scarcity of land located close to urban centers with geology and topography suitable for a hazardous waste disposal site makes the use of the preemption even more urgent. It is not only necessary to acquire such sites before it is put to another use, but it is also necessary to re-zone the surrounding area to provide a BUFFER for the disposal site.

Selection of the Connecticut provision on zoning does not constitute an endorsement of the no-preemption school, nor is that position condemned. It is a matter for each State legislature to decide, on the basis of the State's own priorities.

5.2.8 Section IX(A) and (B) Criteria for Location and Classification of Waste Disposal Sites

The Colorado provision for determining the acceptability of a proposed landfill site is used because it contains one of the most detailed check lists of factors that must be considered in reviewing an application for a landfill permit.

The California provision for site classification is unique among the States sampled, and may be the only one in the United States that matches three classes of disposal site to the groups of wastes that may be consigned to each class of disposal site. The history and features of this scheme are developed further in paragraph 5.2.14, dealing with hazardous waste disposal.

5.2.9 Section X and XI Permits and Standardization

Every State in the sample utilizes a permit system, and all of them provide regulatory agencies with significant authority over a wide range of waste management activities. The COSG Model provides information needed by the State to establish and operate a permitting authority. Permitting allows agency control over waste management, by setting conditions prior to any use and provides a basis for initiating prompt remedial action. The COSG Model defines the application, renewal and revocation criteria. The inclusion of clauses from other states' statutes shows the wider scope of control which permit programs can provide. Some states' permitting requirements were less effective because of substantial exemption provisions.

5.2.10 Section XI(B) Variances

All of the States in the sample have made some provision to permit continued use or operation of non-conforming disposal activities until the affected communities can establish approved, sanitary landfills or other disposal or conservation options. Almost all of the States require a showing of necessity or hardship and require a time certain, when the non-conforming use will be discontinued.

Waste management officials in several States reported that variances are mis-interpreted by a number of communities to be "Grandfather" clauses which would permit indefinite operation of an existing, non-conforming disposal facility. The term "Grandfather" clause is used in the model with a set of examples that require a time certain for terminating the variance, in order to disabuse the holder of a variance that it may be a continuing exemption from existing law.

The California provision, which is made the principal example in the model, makes a special exemption for experimental programs to be conducted under competent supervision. Several of the States in the sample have similar exemptions, without which new disposal procedures cannot be developed.

5.2.11 Sections XII and XIII Enforcement, Penalties and Inspections

There is a wide variety of penalty provisions and several are included in the Model as options. New Jersey has identified the party who is to be punished. Oregon provides that each day a violation continues, a separate offense is committed. Oregon goes on to state that the remedies expressly provided in the Act in no way derogates from other remedies. New Jersey is indicated as an alternative because it allows summary proceedings to be instituted by the agency in the name of the State. Oregon establishes a scale to determine the degree of imposition of civil penalties.

Inspection provisions are very similar, and those of California and Washington are typical. Judicial and Administrative hearings must comply with constitutional requirements and are very similar in each State.

5.2.12 Section XIV Site Closure

Many states deal with the requirements that must be met before closing a site. Many states did not give sufficient recognition to the possible harm that can result from improperly closed sites. The Connecticut procedure defines closing requirements and the owner/operator responsibilities that are of a continuing nature after site abandonment.

5.2.13 Section XV Reuse and Conservation Incentive

Examples of incentive type legislation in the sample States is sparse. California utilizes the traditional incentives, with the addition of an innovative "percentage depletion allowance" and disposal taxes. Minnesota's approach is to levy a fee upon the amount of materials deposited in permitted landfills. The Model also includes a provision for the reusable/deposit type containers; this Oregon concept is designed to reduce volume at the source and to prevent the accumulation of residual waste, and it is reported to be effective in reducing litter in that State.

5.2.14 Section XVII(A) Hazardous and Toxic Waste Controls

Of the States that have legislated on disposal of hazardous waste, Pennsylvania, Illinois and California have provided the most complete laws. Although the manner of presentation of the control strategy and review of permit application differs, all three states demonstrate awareness of the threat posed by hazardous and toxic wastes to their water resource.

Illinois law includes a definition of hazardous wastes, encompassing waste chamicals, explosives, pathological material and radioactive substances. Minimum standards expressed by each State explicitly call for protection of surface and ground waters. Special restrictions or conditions may be imposed upon disposal operations in each state to afford the degree of protection against water quality degradation that is considered necessary.

The Illinois law and regulations require the applicant to prove to the Illinois Environmental Protection Agency (IEPA) that the proposed operation will not cause air or water pollution, or violate any air or water quality standards. Explicit directions are given to the applicant concerning documentation necessary for approval. Proof is based upon a technical study of surface and ground water resources in the vicinity of the site. Maps and data to be submitted to the state must describe such salient technical considerations as occurrence of ground and surface waters, water diversion facilities in the vicinity, soil characteristics, conditions, condition of the ground water and its flow, a listing of sources and types of wastes, and the projected effect of the landfill on surface and ground water quality.

Part of the submittal consists of a map, or maps, of the site design, showing the location of water monitoring wells and gas monitoring wells. A monitoring program must be designed by the applicant and submitted as part of the advance technical documents. Any other devices or procedures necessary to comply with standards must be discussed.

Illinois conducts a two-step permitting procedure. The above technical information is reviewed by IEPA prior to issuance of a permit to develop the site. IEPA sets forth conditions in the development permit which must be met before an operating permit may be requested. If the applicant cannot prove that the site and proposed design are satisfactory for a particular waste, permit conditions will not allow disposal of that waste at the site. Hazardous and liquid wastes and sludges may be accepted only if the permit authorizes their placement in the fill.

After it determines that the applicant has met all conditions, IEPA may issue an operating permit. Conditions laid down in the operating permit include the nature of wastes that may be deposited in the site, water quality monitoring and reporting, and adequate measures to monitor and control leachate. Exemptions may be granted in the form of an experimental permit allowing non-conforming operations to be conducted for two years, provided that some research benefit is to be gained.

The Illinois hazardous waste disposal control program is technically sophisticated. Its case-by-case investigation of proposed operations before discharge begins is quite specific to proper control of residual wastes. Requirements for technical submittals to IEPA, their review by the agency and IEPA's power to issue prohibitions and/or comprehensive conditions provided a substantial check list in examining candidate sections for the model law and regulations.

In California, direct regulation of the impact of all residual wastes and particularly hazardous wastes, upon water quality has been exercised for many years by the State Water Resources Control Board and the Regional Water Quality Control Boards. Each of the regional boards followed a system of disposal site and waste classification formulated by the State Department of Water Resources. Control is exercised through the approval of waste discharges with limits imposed on case-by-case basis, for sanitary landfills, industrial dumps and other land disposal areas. The boards have customarily classified each site according to ground and surface water occurrence, the geology of the site and the type of waste material allowed at the site. In 1972, the State Water Resources Control Board formalized this procedure by adopting the present regulations for waste disposal to land.

Class I disposal sites, as defined in the regulations, are those which are expected to provide complete protection for all time, for the quality of ground and surface waters occurring in that area. These sites are deemed safe for all wastes to be deposited therein, and the site represents no hazard to public health or wildlife resources. Geological and hydrological criteria for site classification are set forth in the law. Group 1 wastes, defined as containing toxic substances and substances which could significantly impair the quality of usable waters, may be deposited only in Class I sites. The regulation lists the wastes which are considered to fall into the Group 1 category.

California regulations also formally establish Class II sites, to receive Group 2 waste category, and these are primarily ordinary municipal solid wastes. A Class III site and Group 3 waste category accommodates disposal of inert solid wastes. These are not considered to have as significant an impact on water quality as residual wastes deposited in the Class I and Class II sites.

In establishing waste discharge requirements for land disposal, the regional water quality control boards must conform to the State Board's classification system. Advance technical reports are required before Regional Board action, much the same as in Illinois and Pennsylvania, and the technical basis for detailed waste discharge requirements and monitoring to be imposed are very similar. While the California Boards may not specify site design, they do have authority to prohibit all portions of an operation and to state the conditions which must be met, and this does bear indirectly upon design.

The general problems of location and classification of waste disposal sites, in Sections IX(A) & (B), and this section dealing with just hazardous waste, tend to overlap at several places. The comments with respect to the Illinois, Pennsylvania and California regulations actually pertain to all three sections of the Model Law.

The California provisions (§IX-B) on site classification were used because they probably represent the trend of future developments in hazardous waste management. The Pennsylvania provisions are utilized in Section XVII because of the wider range of hazardous materials covered and because it is the simplest and most concise of the three States providing in-depth treatment of this subject.

Waste management officials in each of the three States discussed above indicate that while this regulatory area will remain dynamic for some time to come, and much more experience is needed in controlling the impact of these materials on surface and ground water, the laws and regulations in their States are serving the purpose for which they were intended.

The hazardous waste control program is made complete by adding provisions for a "Spill Contingency Plan" taken from Minnesota; the maintenance of records by site operators and waste haulers, taken from California; and a proposed regulation of the movement of hazardous wastes over the road. No provision was found in the sample States that deals with this latter problem. Section XVII(C) was drafted to address the condition described in Chapter III, Section 3.2.9, *supra*.

5.2.15 Section XVII(D) Abandoned Motor Vehicles

This section is included because of the innovative procedure that Minnesota has adopted. By offering an incentive to a scrap reducer, in the form of a subsidy amounting to the difference between the scrap reducer's cost of reducing and the value of the materials recovered, Minnesota is able to reduce the load on landfills and assure the recovery of natural resources that would otherwise be reburied in the earth. While the application described here is limited to automobiles, and does work well in Minnesota, the concept could be applied to the recovery of other materials where the market price is slightly below the cost of reclamation.

5.2.16 Section XVII(E) Mine Drainage

The Pennsylvania provision is utilized here because that State has had considerable experience in this area of water pollution control and because this provision reflects the heuristic, case by case methodology required to balance the legitimately competing State interests involved.

5.2.17 Section XVII(F)&(J) Feed Lot Drainage & Waste Piles

Animal wastes are not a "residual" until they are collected and in the process of some form of disposition. The State laws and regulations dealing with this subject do not make that fine distinction, but almost all of them do encompass the problem of drainage from waste piles in their regulation. The Oregon provision was selected as being typical of those in use in the sample States. The Pennsylvania and Minnesota rules in Section XVII(J) deal specifically with the drainage from the residual, e.g. after collection of the waste. The "waste pile" may be manure, mine tailings or other materials that are subject to leaching.

5.2.18 Section XVII(H) Waste Disposal Wells

A number of States in the sample have provisions similar to the Oregon section used in the Model. The salient characteristics of each are the permit requirement, which allows a thorough investigation of the possible deleterious effects on water quality, and the requirement of a showing by the permit applicant that NO OTHER TREATMENT OR DISPOSAL METHOD, which affords better protection, is REASONABLY AVAILABLE.

It would appear that a stringent interpretation of "reasonably available," would end this source of potential hazard to ground water, but economic considerations will probably lead permit authorities to find hardships that warrant continued use of disposal wells.

Well plugging requirements are quite uniform in each of the States that discuss disposal wells.

5.2.19 Section XVII(I) Disposition of Dredge Spoil

The law and regulations of most of the States having a provision dealing with dredged material are uniformly proscriptive, e.g. "thou shall not place dredge spoil in such a manner that it may contaminate water resources." The Washington provision used in the model reflects a normative approach which recognizes that dredged material must go some place. This provision requires that all local master programs (general plans) must include long-range uses for dredged material on the land.

5.2.20 Section XVII(L) Application of Sludge to Farm Land

The States in the sample have not legislated or regulated directly on this subject. The attitude of the waste management and health officials who were interviewed on the subject, indicates that most States consider such practices to be regulated under existing permit laws. As is noted in Section XI(B), California would probably permit land spreading of sludge, under terms of a variance, depending upon the chemical analysis of the substance to be applied to the land.

In Section XVII(A)(3), the Oklahoma rule would permit "soil farming techniques" to be used even for heavy metal laden sludge, if the agency is satisfied that site conditions can be controlled so as to avoid water pollution.

The Illinois draft of a proposed law used in the Model, provides a set of guidelines for controlled use of sludge on land. It is anticipated that safe application rates may vary from region to region, based upon factors discussed in paragraph 3.2.6, *supra*.

APPENDIX A

GLOSSARY OF RESIDUAL WASTE TERMINOLOGY

Throughout our research of the selected states' statutes and regulations, it became apparent that the area of residual waste has a vernacular of its own. This Appendix is a glossary of terms with their definitions; it will prove helpful in standardizing the terms to be used when drafting legislation and in daily communications within the residual waste area. The contents of Appendix A are those terms and definitions currently being used in existing legislation; they were culled from the acts and regulations of the twelve states involved in this study.

Abandoned Motor Vehicle Abandoned vehicle means a motor vehicle, as defined in Minnesota Statutes, 169.01, that: (i) has remained for a period of more than 48 hours on public property illegally; (ii) has remained for a period of more than 48 hours on public property and is lacking vital component parts such that it is in an inoperable condition; (iii) has remained for a period of more than 48 hours on private property without the consent of the person in control of such property; (iv) has remained for a period of more than 48 hours on private property, with or without the consent of the person in control of such property, which is in an inoperable condition such that it has no substantial, potential further use consistent with its usual functions, unless it is kept in an enclosed garage or storage building; (v) has been voluntarily surrendered by its owner to a unit of government or a person duly licensed pursuant to Minnesota Statutes, 168B.10 and these regulations. A classic car or pioneer car, as defined in Minnesota Statutes, 168.10 shall not be considered an abandoned motor vehicle within the meaning of these regulations.

"Abandoned Vehicles" includes vehicles, with or without motor power, including cars, trucks, trailers, mobilehomes, buses, etc., left on public or private property for an extended period of time and usually in an inoperable or hazardous condition.

Active Face "Active Face" means the working surface of a handfill upon which solid wastes are deposited during the landfill operation, prior to the placement of cover material.

Agency shall mean any controlling entity, public or private, elected, appointed, or volunteer utilizing methods approved by the Health Department for the purpose of controlling and supervising the collection and/or disposal of solid wastes.

Agricultural waste - Solid waste resulting from the production of farm or agricultural products.

"Agricultural Solid Wastes" are wastes resulting from the production of farm or agricultural products including manures wherever produced.

Agricultural Solid Wastes. Agricultural Solid Wastes include wastes resulting from the production and processing of farm or agricultural products, including manures, prunings and crop residues wherever produced.

"Animal Manure" shall mean poultry, livestock or other animal excreta or mixture with feed, bedding or other materials.

"Animal Wastes" shall mean animal manure which is stored, transported or disposed of as an unwanted waste material and which poses a potential pollution hazard to the land, air or waters of the State. This shall not include animal manure used as fertilizer.

"Ashes" The solid residue from burning of wood, coal, coke, or other combustible material used for heating, or from incineration of solid wastes, but excepting solid residue the storage or disposition of which is controlled by other agencies.

Ashes. "Ashes" includes the residue from the combustion of any solid or liquid materials.

"Ashes" is the residue from the burning of wood, coal, coke or other combustible materials.

"Baling" includes the process of compressing and binding solid wastes.

Bedrock - the solid rock exposed at the surface of the earth or overlain by unconsolidated material.

Bedrock - the solid rock exposed at the surface of the earth or overlain by unconsolidated material.

Bulky waste - Large items of refuse including but not limited to appliances, furniture, large auto parts, trees, branches, and stumps

Bulky waste. "Bulky Waste" includes large items of solid wastes such as appliances, furniture, large auto parts, trees, branches, stumps and other oversize wastes whose large size precludes or complicates their handling by normal collection, processing or disposal methods.

Bulky waste means landclearing, demolition or other non-putrescible wastes. The term bulky waste includes, but it not necessarily limited to, the following: tires, rubble, stumps, and white goods.

Cell means that portion of compacted solid wastes in a landfill that is enclosed by natural soil or cover material during a designated period.

Cell - compacted refuse completely enclosed by cover material.

Clean fill means natural soil which is inert in terms of leaching and does not pose a pollution threat to ground or surface waters.

Collecting Agency is any agency, business or private or municipal corporation for the collecting of solid waste.

Collection Vehicle or Equipment includes any vehicle or equipment used in the collection of residential refuse or commerical solid wastes.

Collector Collector means a person holding a valid license from the Agency to engage in the collection of abandoned motor vehicles and other scrap metal.

Combustible Refuse includes any burnable materials.

Commercial waste - All solid waste emanating from establishments engaged in business. This category includes but is not limited to solid waste originating in stores, markets, office buildings, restaurants, shopping centers, and theaters.

Commercial Solid Wastes include all types of solid wastes generated by stores, offices and other commercial sources, excluding residences, and excluding industrial wastes.

Compaction - the reduction of volume of material under load.

Composting or Compost Plant shall mean an officially controlled method or operation whereby putrescible solid wastes are broken down through microbic action to a material offering no hazard or nuisance factors to public health or well being.

Composting. "Composting" includes a controlled microbial degradation of organic wastes yielding a safe and nuisance free product.

Composting is the process of biochemical degradation of organic waste under controlled conditions.

Composting - the process in which solid waste is shredded or ground and then biochemically decomposed under controlled anaerobic or aerobic conditions to yield a stable, nuisance-free, humus-like product which may be used as a soil conditioner.

Composting - Composting means the controlled biological decomposition of selected solid waste in a manner resulting in an innocuous final product.

A "Composting plant" is a solid waste disposal facility utilizing biochemical degradation to change decomposable portions of solid waste to a humus-like material.

Construction and demolition waste - Waste building materials and rubble resulting from construction, remodeling, repair, and demolition operations on houses, commercial buildings, and other structures and pavements.

Construction and Demolition Wastes. "Construction and Demolition Wastes" include the waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures.

Container-Detachable - is a partially mechanized self-service refuse storage container for individual or bulk use, utilizing special equipment for emptying or transporting to the disposal site.

Container, storage, individual, disposable, is a wet strength kraft paper or a polyethylene discardable container that is free standing, affixed to a wall, or mounted on or in special racks or boxes with a capacity of 20 to 35 gallon capacity.

Container storage, individual, reusable is a durable, corrosion-resistant, rodent-resistant, easily cleanable container with tight fitting lids and equipped with suitable handles with a capacity of 32 gallons or less.

Contaminant is any solid, liquid, or gaseous matter, any odor, or any form of energy, from whatever source.

Cover material means soil or other suitable material used to cover compacted solid waste in a solid waste disposal area. This material shall have a textural range of sandy clay, sandy clay loam, sandy loam, loamy sand, clay loam, loam, silty clay loam, or silty loam in accordance with the National Cooperative Soil Survey, as may be amended from time to time by the U.S. Soil Conservation Service.

Cover Material. "Cover Material" means soils or other suitable material that is used to cover compacted solid wastes in a disposal site.

Cover material - soil or other material that is used to cover compacted solid waste in a sanitary landfill and that is free of objects that would hinder compaction and free of content that would be conducive to vector harborage, feeding, or breeding.

Daily Cover includes that cover material spread and compacted on the entire surface of the active face of the sanitary landfill at least at the end of each operating day in order to control vectors, fire, water infiltration, erosion, and to prevent unsightliness.

Dead Animals. "Dead Animals" include those animals whose carcasses require disposal.

Decomposition Gases. "Decomposition Gases" include gases produced by chemical or microbial activity during the decomposition of solid waste.

Development. Construction or installation of a facility within the meaning of those terms used in Section 39 of the Act.

Digested Sludge - means the concentrated sewage sludge that has decomposed under controlled conditions of pH, temperature and mixing in a digester tank.

Disposal Area. "Disposal Area" means that portion of a disposal site which had received or is receiving solid wastes.

Disposal Contract. Disposal contract means a contract entered into between a unit of government or the agency acting on its behalf and a site operator, disposer, or other qualified person for the purpose of storage, collection, transportation, reduction, scrap processing or other services necessary to prepare abandoned motor vehicles and other scrap metal for recycling or other methods of disposal.

"Disposal Site" means land used for the disposal or handling of solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, salvage sites, incinerators for solid waste delivered by the public or by a solid waste collection service, and composting plants; but the term does not include a facility subject to the permit requirements of ORS 449.740 or a landfill site which is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar nondecomposable material, unless the site is used by the public either directly or through a solid waste collection service.

"Disposal site" means any place at which solid waste is dumped, abandoned, accepted or disposed of by incineration, land filing, composting or any other method.

Disposal Site or Site. "Disposal Site or Site" includes the place, location, tract of land, area or premises in use, intended to be used, or which has been used for the landfill disposal of solid wastes.

"Disposal Site" is the location where any final treatment, utilization, processing, or deposition of solid waste occurs. This includes, but is not limited to, sanitary landfills, incineration, composting, dumps, and grinding transfer stations, salvage and reclamation sites, hog feeding.

"Disposal Facility" or "Facility". "Disposal facility" or "facility" means any facility or location where disposal of solid waste occurs.

Disposal Site Owner. "Disposal Site Owner" means the person as defined in Section 17115.49 who holds title to the property and exercises control over its usage.

Disposer. Disposer means a person licensed by the Agency as a collector, transporter, reducer or scrap processor.

Domestic waste or household waste - Solid waste, comprised of garbage and rubbish, which normally originates in the residential private household or apartment house.

Dump. "Dump" means a disposal site which is exposed to the elements, vectors and scavengers.

"Engineering data" shall mean information describing the area of disposal sites in acres, a description of the access roads and roads within the site, a description of fencing enclosing the disposal site, and overall plan listing the method or methods by which the disposal site will be filled with refuse and the use to which it will be placed once the site is filled and closed.

"Engineering Report Design Criteria" shall mean the minimum requirements which shall be applied to new facilities proposed for designation as a solid waste disposal site and facility.

Facility - any device, mechanism, equipment or area used for storage, transfer, processing, incineration or deposit of solid waste.

"Feedlot Operator" shall mean an individual, a corporation, a group of individuals, a partnership, joint venture, owner or any other business entity having charge or control of one or more livestock feedlots, poultry lots or other animal lots.

"Fertilizer" shall mean (a) animal manure which is put on or in the soil to improve the quality or quantity of plant growth, or (b) animal manure which is used as a compost, soil conditioner, or specialized plant bed.

Fill. "Fill" includes compacted solid waste and cover material.

Final Cover. "Final Cover" means cover material that represents the permanently exposed final surface of a fill.

Final Site Face. "Final Site Face" means the final exterior surface of the completed portion of a fill.

Garbage. Garbage is discarded material resulting from the handling, processing, storage, preparation, serving and consumption of food.

Garbage - Solid waste resulting from animal, grain, fruit, or vegetable matter used or intended for use as food.

"Garbage" is all putrescible material including animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food; swill and carcases of dead animals, except sewage, sewage sludge, and human body wastes.

Garbage. "Garbage" includes all kitchen and table food waste, and animal or vegetable waste that attends or results from the storage, preparation, cooking or handling of food stuffs.

"Garbage" is waste resulting from the handling, processing, preparation, cooking, and consumption of food, and wastes from the handling, processing, storage, and sale of produce.

Garbage Putrescible animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food, including wastes from markets, storage facilities, handling and sale of produce and other food products, and excepting such materials that may be serviced by garbage grinders and handled as household sewage.

"Geological data" shall mean classes of soil to a reasonable depth from the ground surface, the location and thickness of the significant soil classifications throughout the area of the site and to extend some distance beyond the boundaries of the site, to include information on water elevations, seepage quantities and water wells 1,000 feet beyond the boundary of the disposal site.

Ground water - Water in the ground that is in the zone of saturation.

Groundwater - water occurring in the zone of saturation in any aquifer or soil.

Groundwater means water present in the zone of saturation of an aquifer.

Hazardous Wastes shall include but not be limited to wastes resulting from the manufacture or use of pesticides and drugs (other than normal household use), pathological wastes, explosives, radioactive materials, and like dangerous or toxic materials that should not be handled in the manner prescribed for normal wastes.

"Hazardous Solid Waste" is solid waste that may, by itself or in combination with other solid waste, be infectious, explosive, poisonous, highly flammable, caustic or toxic or otherwise dangerous or injurious to human, plant or animal life, but does not include Environmentally Hazardous Wastes as defined in Section 1, Chap. 699, Oregon Laws 1971.

Hazardous waste - Any waste which by virtue of its quantity or content presents a hazard to the individuals handling it, a hazard to public health, or potential pollution to the air or waters of this Commonwealth or makes land unfit or undesirable for normal use. This category shall include but is not limited to chemicals, explosives, pathological wastes, and radioactive materials.

"Hazardous Wastes" include, but are not limited to, explosives, medical wastes, radioactive wastes, and chemicals which are harmful to the public health or the environment.

Hazardous waste - solid waste with inherent properties which make such waste difficult or dangerous to manage by normal means including but not limited to chemicals, explosives, pathological wastes, radioactive materials, and wastes likely to cause fire.

"Hazardous material and toxic substances" are liquid or solids which can be dangerous to man, animal and plantlife unless properly neutralized.

Hazardous wastes means solid and liquid wastes in the following classifications: (a) Explosives; (b) pathogenic wastes; (c) radioactive wastes; (d) chemical wastes which either create an immediate safety hazard to persons disposing of the waste or which by virtue of their chemistry and/or the method of disposal present a threat, as determined by the Commissioner, to the quality of gound or surface waters; (e) hospital operating room wastes

Hazardous Wastes. "Hazardous Wastes" include any waste material or mixture of wastes which is toxic, corrosive, flammable, an irritant, a strong sensitizer, which generates pressure through decomposition, heat or other means, if such a waste or mixture of wastes may cause substantial personal injury, serious illness or harm to humans, domestic animals, or wildlife, during, or as an approximate result of any disposal of such wastes or mixture of wastes as defined in Article 2, Chapter 6.5, Section 25117 of the Health and Safety Code. The terms "Toxic", "corrosive", "flammable", "Irritant", and "strong sensitizer" shall be given the same meaning as in the California Hazardous Substances Act (Chapter 13 commencing with Section 28740 of Division 21 of the Health and Safety Code).

"Heat-treated" means a process of drying or treating sewage sludge where there is an exposure of all portions of the sludge to high temperatures for a sufficient time to kill all pathogenic organisms.

"Hydrological data" shall include average, maximum, and minimum amounts of precipitation for each month of the year, surface drainage facilities, streams and lakes adjacent to the disposal site, irrigation water ditches adjacent to the site, wells, streams and lakes.

Incineration. Incineration is the process of burning wastes, for the purpose of volume and weight reduction in facilities designed for such use.

Incineration - The process of burning combustible solid waste to an inoffensive gas and an inert residue.

"Incineration" is the controlled combustion of solid, liquid or gaseous waste changing them to gases and to a residue containing little combustible material.

Incinerator shall mean a device designed to burn that portion of garbage and rubbish which will be consumed at temperatures generally ranging 1600 degrees F or over. The unburned residue from an incinerator, including metal, glass and the like shall be called ashes.

Incinerator. "Incinerator" includes any equipment used for the volume reduction or destruction of combustible wates by burning, from which the exhaust gases pass through a flue.

"Incinerator" means a combustion device specifically designed for the reduction, by burning, of combustible solid wastes.

"Incinerator" is a furnace and associated building designed to burn solid wastes under controlled conditions, of more than 50 pounds per hour capacity.

Industrial Wastes. "Industrial Wastes" include all types of solid wastes and semi-solid wastes which result from industrial processes and manufacturing operations.

"Industrial Wastes" are waste by-products at manufacturing operations.

Industrial waste - All solid waste resulting from manufacturing and industrial processes such as those carried on in factories, processing plants, refineries, slaughter houses and steel mills.

"Inert Material" is inactive or neutral solid waste.

Infectious Wastes. "Infectious Wastes" include : (a) Equipment, instruments, utensils and other fomites of a disposable nature from the rooms of patients who are suspected to have or have been diagnosed as having a communicable disease and must, therefore, be isolated as required by public health agencies; (b) laboratory wastes, including pathological specimens (i.e., all tissues, specimens of blood elements, excreta and secretions obtained from patients or laboratory animals) and disposable fomites (any substance that may harbor or transmit pathogenic organisms) attendant thereto; (c) surgical operating room pathologic specimens - including recognizable anatomical parts, human tissue, anatomical human remains and disposable materials from hospitals, clinics, outpatient areas and emergency rooms, as is also defined in Section 314 (d) of the California Administrative Code, Title 17.

Institutional Solid Wastes. "Institutional Solid Wastes" include solid wastes originating from education, health care, correctional, research facilities or other similar facilities.

Institutional waste - All solid waste emanating from institutions such as hospitals, nursing homes, orphanages, schools and universities.

Intermediate Cover. "Intermediate Cover" means cover material that is applied on areas where additional cells are not to be constructed for extended periods of time, and therefore, must resist erosion for a longer period of time than daily cover.

"Junk Automobile" is defined to be the hulk of body of a motor vehicle essentially suitable only for one use as scrap metal. Junk automobile parts constitute the normally recyclable materials obtainable from a motor vehicle.

"Land Disposal Site" is a disposal site at which solid wastes are placed on or in the ground for disposal, such as but not limited to landfills, sludge lagoons and sludge spreading areas.

Land Pollution. Land Pollution is the presence in or on the land of any solid waste in such quantity, of such nature and duration, and under such condition as would affect injuriously any waters of the state, create air contaminants or cause air pollution.

"Landfill" is a general term meaning all landfill operations such as sanitary landfills and modified landfills.

Leachate. "Leachate" includes liquid that has come in contact with or percolated through waste materials and has extracted or dissolved substances therefrom.

"Leachate" is liquid that has percolated through solid waste.

"Leachate" is water that has passed through a landfill or an accumulation of solid waste, containing dissolved and suspended and/or microbial contaminents.

Leachate - liquid containing materials removed from solid waste.

Leachate means that liquid which results from ground or surface water which has been in contact with solid waste and has extracted material, either dissolved or suspended, from the solid waste.

Lift - An accumulation of daily refuse cells over which an interim cover of at least 12 inches of compacted soil is placed with the intent of transfersing the site with a similar lift.

Lift - an accumulation of refuse which is compacted into a cell and over which compacted cover is placed.

"Light Material" is paper, plastic, cardboard, and other wastes which may be wind transported.

Liquid Wastes. "Liquid Wastes" means waste materials which are not spadeable.

Litter. "Litter" means any post-consumer solid waste which is not deposited in (1) an authorized solid waste disposal site, (2) appropriate storage containers or (3) in other areas designated for disposal of solid wastes.

"Litter" is solid waste that is scattered in a careless manner.

"Litter Receptacle" is a specialized storage container for nonputrescible litter approved under the litter control act.

"Livestock" shall mean beef and dairy cattle, horses, swine and sheep.

"Livestock Feedlot" shall mean the confined feeding, breeding, raising or holding of livestock in enclosures specifically designed.

Local Government. "Local Government" includes a local public entity which includes a county, city, district, or any other special political subdivision, but does not include the State.

Maximum high watertable means the highest elevation reached by the upper level of the groundwater as determined by prudent engineering evaluation.

"Metallurgical slag" is the cinder or dross waste product resulting in the refining of metal bearing ores.

"Mill-tailings" are that refuse material resulting from the processing of ore in a mill.

"Mining wastes" are either mill-tailings or metallurgical slag or both.

Modification - any physical change, or change in the method of operation, of a solid waste management facility. For purposes of permits issued pursuant to this Chapter, the Agency may specify conditions under which a solid waste management facility may be operated iwthout causing a modification as herein defined.

"Modified Landfill" is the disposal of solid waste by compaction in or upon the land and cover of all wastes deposited, with earth or other approved cover material at specific designated intervals, but not each operating day.

"Natural Resource Systems" means the total system produced by the interaction or interdependence of the earth materials, the atmospheric system and the biologic system for any designated geographic area. These systems include but are not limited to the characteristics and behavior of soil, unconsolidated geologic material, bedrock, surface water, subsurface water, air, climate, and the biota.

Non-Combustible Refuse. "Non-Combustible Refuse" includes miscellaneous refuse materials that are unburnable at ordinary incinerator temperatures (1300 to 2000 degrees F).

"Non-digested Sludge" means the sewage sludge that has accumulated in a digester but due to a lack of environmental control has only partially decomposed.

Nuisance. "Nuisance" includes anything which is injurious to human health or is indecent or offensive to the senses and interferes with the comfortable enjoyment of life or property, and affects at the same time an entire community or neighborhood or any considerable number of persons although the extent of annoyance or damage inflicted upon the individual may be unequal and which occurs as a result of the storage, removal, transport, processing or disposal of solid waste.

"Nuisance" consists in unlawfully doing an act, or omitting to perform a duty, which act or omission either annoys, injures, or endangers the comfort, repose, health or safety of others, offends decency, or unlawfully interferes with, obstructs, or tends to obstruct, any lake or navigable river, bay, stream, canal, or basin, or any public park, square, street or highway; or in any way renders other persons insecure in life, or in the use of property.

Official plan - A comprehensive plan for the provision of an adequate solid waste management system adopted by a municipality, authority, county or any combination thereof possessing authority to provide or having jurisdiction over the provision of such a system, and submitted to and approved by the Department as provided in the act.

Open Burning. Open burning is burning any matter whereby the resultant combustion products are emitted directly to the open atmosphere without passing through an adequate stack, duct or chimney.

"Open Burning" is the burning of solid wastes in an open area, or pile; or in a barrel or furnace with inadequate controls which yields an unsatisfactory residue and an unsatisfactory air effluent.

Open Burning means the burning of any material under such conditions that the products of combustion are emitted directly into the open atmosphere.

Open Burning is the combustion of any matter in the open or in an open dump.

Open Dump - A land disposal site which lacks proper management and is not operated with compaction and cover.

Open Dump shall mean any officially recognized place, land or building which serves as a final depository for solid wastes, whether or not burned or buried, which does not meet the minimum requirements for a sanitary landfill, except approved incinerators, compost plants, and salvage yards.

Open Dumping means the consolidation of refuse from one or more sources at a central disposal site that does not fulfill the requiremetns of a sanitary landfill.

Operator - A person who owns, leases, or manages a solid waste management facility.

Operator means an individual, certified by the Commissioner, who is responsible for maintaining the solid waste disposal area in conformance with regulations and permit.

Operator means the person to whom the approval to operate a disposal site, transfer/processing station or collection system is granted, and who is responsible for the direct control of the receipt, unloading and placement or further processing of solid wastes.

Operating Area Operating Area means that portion of a disposal site which is currently in use for the unloading and disposal of wastes.

Operational Data shall include a plan for overall supervision of the disposal site to include supervisory personnel and labor.

Pasture - shall mean areas where grass or other growing plants are used as food for grazing. A pasture shall be deemed a livestock feedlot or poultry lot when the concentration of livestock or poultry is such that a vegetation cover is not maintained except in the immediate vicinity of temporary supplemental feeding or watering devices.

Permeability - the capability of a material to pass a fluid.

Permit means a written permit issued by the Department, bearing the signature of the Director or his authorized representative which by its conditions may authorize the permittee to construct, install, modify or operate specified facilities, conduct specified activities, or dispose of solid wastes in accordance with specified limitations.

Person - Person means any human being, any municipality or other governmental or political subdivision or other public agency, any public or private corporation, any partnership, firm, association, or other organization.

Person - The term 'person' means any individual, corporation, company, firm, partnership. association, trust, state agency, government instrumentality or agency, institution, county, city, town or municipal authority or trust, venture, or other legal entity however organized.

Person means the United States or agencies thereof, any state or public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

Person means any individual, firm, partnership, association or corporation, public or private, organized or existing under the laws of the state or any other state, including federal corporations, but excluding municipalities, special districts having taxing powers or other political subdivisions of the state.

Person - Person includes an individual, firm, association, copartnership, political subdivision, government agency, municipality, industry, public or private corporation or any other entity whatsoever.

Person - person also includes any city, country, district, the state or any agency or department thereof, and the United States to the extent authorized by federal law or regulation.

Person shall mean the State, any individual, partnership, firm, association, municipality, public or private corporation or institution, political subdivision or agency of the State, trust, estate, other legal entity, or agency, and any successor, representative, or agency, and any successor, representative, or agent of the foregoing.

Person is any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or their legal representative, agent or assigns.

Poultry shall mean all domestically raised fowl, including but not limited to, chickens, turkeys, ducks, geese and game birds.

Poultry Lot shall mean (a) The place of confined feeding, hatching, raising, or holding of poultry in enclosures, yards or pens where animal manure may be accumulated; or (b) Range areas not normally used for pasture or crops, in which animal manure may accumulate and be carried directly or indirectly to waters of the State or constitute a potential pollution hazard.

Premises - premises includes a tract or parcel of land with or without habitable buildings or appurtenant structures.

Problem Wastes are bulky wastes, abandoned vehicles, construction and demolition wastes, industrial wastes, manure, fly ash and such other solid waste that may take special handling.

Processing of Wastes - Any technology applied for the purpose of reducing the bulk of solid waste materials or any technology designed to convert part or all of the waste.

Processing. Processing includes the reduction, separation, recovery, conversion or recycling of solid waste.

Processing. is the operation of solid waste handling that converts it into a useful product.

Public Waters - include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Putrescible Material - is organic material that can decompose and may give rise to foul smelling, offensive products.

Putrescible Wastes - include wastes that are capable of being decomposed by micro-organisms with sufficient rapidity as to cause nuisances because of odors, gases or other offensive conditions, and include materials such as food wastes, offal and dead animals.

Raw Sewage Sludge - means the accumulated suspended and settleable solids of sewage deposited in tanks or basins mixed with water, to form a semiliquid mass.

Reclamation - is the disposal process in which there is hand and/or mechanical segregation of solid waste for sale and reuse including salvage.

Reclamation Site - is a location used for the processing or the storage of reclaimed material.

Recycling - is a process of reclamation.

Recycling - means the reuse of recovered resources in manufacture, agriculture, power production or other processes.

Recyclable Materials - means a type of material that is subject to reuse or recycling.

Recycling Operation - means that part of a solid wastes disposal facility or a part of a general disposal facility at which recyclable materials may be separated from other materials and for further processing.

Recycling - means the process by which salvaged materials become usable products.

Reducer - means a person holding a valid license from the Agency to engage in the reduction of abandoned motor vehicles and other scrap metal.

Reduction - Reduction means the decrease or diminishment in bulk or mass of abandoned motor vehicles or other scrap metal by methods approved by the Agency, including but not limited to, incineration, crushing, shearing, or baling.

Refuse - includes garbage and rubbish.

Refuse - is any garbage or other discarded solid materials.

Refuse - is putrescible and nonputrescible solid wastes, including garbage, rubbish, ashes, incinerator ash, incerator residue, street cleanings, and market and industrial solid wastes, and including sewage treatment wastes, which are in dry form.

Refuse - All materials which are discarded as useless.

Removal - means the act of taking solid wastes from the place of waste generation either by an approved collection agent or by a person in control of the premises.

Removal Frequency - means frequency of removal of solid wastes from the place of waste generation either by an approved collection agency or by the owner of the waste.

Removal of Solid Wastes - means removal of wastes from the premise where they are generated or stored for disposal to an approved site by an approved collection agency, by the waste generator or by his authorized agent.

Residential Refuse - includes all types of domestic garbage and rubbish which originate in residential dwellings.

Residue - Solid materials such as ash, ceramics, glass, metal and unburned organic substances remaining after incineration.

Resource Conservation Programs - means programs which encourage solid materials conservation and the reduction of environmental impact from solid waste, including, but not limited to, public education and encouragement of market demand for reusable or recyclable materials. Generally such programs are not directly linked to the ultimate construction of a particular resource recovery facility but may include the initial feasibility study.

Resource Recovery - means the reclamation or salvage of wastes for reuse, conversion to energy or recycling.

Resources Recovery - means the processing of solid wastes in such a way as to produce materials or energy which may be used in manufacturing, agriculture, or other processes.

Resource Recovery - means those processes which result in the reclamation for reuse or for conversion to energy or usable products of solid wastes as defined in Government Code Section 66719 which includes wastes from municipal, industrial and agricultural sources, whereby materials and/or energy resources are obtained for subsequent use or benefit.

Resource Recovery Facility - means structures, machinery, or devices which, singly or in combination, are designed, constructed and operated so as to separate, process, connect, treat or prepare collected solid waste in such a manner that component materials, substances or recoverable resources may be used as a raw material or for other productive purposes.

Resources Recovery Facility - means a facility utilizing processes aimed at reclaiming the material or energy values from solid wastes.

Resource Recovery Projects - means projects which result in the design, installation, implementation, or operation of resource recovery systems or resource recovery facilities.

Resource Recovery System - means any system used for the recovery of material or energy from solid waste, or for the collection, transportation, separation, sorting, processing or storage of solid materials which aids in the recovery of materials or energy from solid waste.

Rubbish - is nonputrescible solid wastes, including ashes, consisting of both combustible and noncombustible wastes, such as paper, cardboard, tin cans, yard clippings, wood, glass bedding, crockery, or litter of any kind.

Rubbish - All solid waste except garbage and other decomposable matter. This category includes but is not limited to ashes, bedding, cardboard, cans, crockery, glass, paper, wood, and yard cleanings.

Rubbish - includes nonputrescible solid wastes such as ashes, paper, cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, plastics, rubber by-products or litter.

Rubbish - Nonputrescible solid wastes (excluding ashes) consisting of both combustible and non-combustible wastes. Combustible rubbish includes paper, rags, cartons, wood, furniture, rubber, plastics, yard trimmings, leaves, and similar materials. Non-combustible rubbish includes glass, crockery, metal cans, metal furniture and like materials which will not burn at ordinary incinerator temperatures (not less than 1600 degrees F).

Runoff - means the portion of precipitation or applied water that drains from an area as surface flow.

Salvage - means separating or collecting reusable solid or liquid wastes for resale or the business of separating or collecting and reclaiming reusable solid or liquid wastes, and the term includes but is not limited to secondhand dealers, junk dealers and salvage operators; however, the term does not include:

(a) A business licensed pursuant to ORS 481.345.

(b) Activities of civic, community, benevolent or charitable organizations.

(c) Activities for which certificates are required by ORS 433.405 to 433.680.

Salvaging - means the controlled removal of waste material for utilization.

Salvaging - the return of solid waste materials to beneficial use.

Salvaging - the controlled removal of materials from a solid waste processing or disposal site.

Salvage - means separating or collecting reusable solid or liquid wastes for resale or the business of separating or collecting and reclaiming reusable solid or liquid wastes for reuse.

Sanitary Landfill - is a method of disposing of solid waste on land without creating nuisances or hazards to public health or safety, by utilizing the principles of engineering to confine the solid waste to the smallest practical areas, to reduce it to the smallest practical volume, and to cover it with a layer of earth at the conclusion of each day's operation, or at such more frequent intervals as may be required by the Agency.

Sanitary Landfill - is the disposal of solid waste by compaction in or upon land and cover of all wastes deposited with earth or other approved cover material at least once each operating day.

Sanitary Landfill - A land site on which engineering principles are utilized to bury deposits of solid waste without creating public health or safety hazards or nuisances.

Sanitary Landfill - Sanitary Landfill means a disposal site employing an engineered method of disposing of solid wastes in a manner that minimizes environmental hazards by spreading, compacting to the smallest practical volume and applying cover material over all exposed wastes at the end of each operating day. (See also Landfill.)

Landfill - means a disposal site employing a method of disposing of solid wastes on land without creating nuisances or hazards to public health or safety, by utilizing principles of engineering to confine the wastes to the smallest practical area, to reduce them to the smallest practical volume, and to cover them with a layer of suitable cover material at specific designated intervals. (See also Sanitary Landfill.)

Sanitary Landfill - means the disposal of refuse on land without creating nuisances or hazards to public health or safety, by confining the refuse to the smallest practical volume and covering.

Sanitary Landfill - shall mean a controlled area of land upon which solid waste is deposited, and is compacted and covered with compacted earth each day as deposited, with no on-site burning of wastes, and so located, contoured and drained that it will not constitute a source of water pollution as determined by the Alabama Water Improvement Commission.

Sanitary Landfill - is the final disposal of solid waste on the land by a method employing compaction of the refuse and covering with earth or other inert material.

Scavenging - the uncontrolled removal of material from a solid waste processing or disposal site.

Scavenging - is the uncontrolled removal of materials at a disposal site or transfer station.

Scavenging - the removal of materials from a solid waste management facility in a manner not in conformity with the regulations governing salvaging.

Scrap Processing - means converting of abandoned motor vehicles and other scrap metal to a form usable in the manufacture of new metal products.

Scrap Processor - means a person holding a valid license from the Agency to engage in processing scrap from abandoned vehicles and other scrap metal.

Septic Tank Pumpings - include sludge and wastewater removed from septic tanks.

Sewage Sludge - includes any residue, excluding grit or screenings, removed from waste water, whether in a dry, semidry or liquid form.

Sewage Treatment Residues - coarse screenings, grit and dewatered or air-dried sludge from sewage treatment plants and pumpings of septic tank sludges which require disposal with municipal solid wastes.

Shredding - includes a process of reducing the particle size of solid wastes through use of grinding, shredding, mulling or rasping machines.

Sinkhole - means a hole worn through bedrock into which surface water drains to an underground channel.

Site - any location, place, or tract of land and facilities, used for solid waste management.

Site Operator - means the operator of a regional collection site, whether the operation be a unit of government or a person under contract with a unit of government to operate the site.

Sludge - includes the accumulated solids and/or semisolids deposited from wastewaters or other fluids.

Solid Wastes - all putrescible and nonputrescible discarded materials (except household sewage and livestock and poultry wastes) including but not limited to garbage, rubbish, ashes, street and highway cleanings, dead animals including offal, abandoned automobiles, and such industrial wastes as are not controlled by other agencies.

Solid Waste - means all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.

Solid Wastes - means garbage, refuse, sludge of sewage disposal plants, and other discarded solid materials, including solid waste materials resulting from industrial, commercial, and from community activities, but shall not include agricultural wastes.

Solid Waste - means useless, unwanted or discarded solid materials, not excluding semisolid and liquid materials other than sewage collected and treated in a municipal sewerage system, but shall not include scrap materials held for reuse or resale by a scrap material dealer.

Solid Waste - refuse.

Solid Waste - is garbage, refuse and other discarded solid materials, except animal waste used as fertilizer, including solid waste materials resulting from industrial, commercial and agricultural operations, and from community activities. Solid waste does not include earthen fill, boulders, rock and other materials normally handled in construction operations, solid or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved materials in irrigation return flows, or other common water pollutants.

Solid Waste - means all putrescible and nonputrescible solid and semisolid wastes including garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and discarded commodities.

Solid Waste - means garbage, refuse and other discarded materials resulting from industrial, commercial and agricultural operations, and from domestic and community activities, and shall include all other waste materials including liquids disposed of incident thereto except it shall not include solid animal and vegetable wastes collected by swine producers licensed by the State Department of Agriculture to collect, prepare and feed such wastes to swine on their own farms.

Solid Waste - means all putrescible and nonputrescible refuse in solid or semisolid form including, but not limited to, garbage, rubbish, ashes or incinerator residue, street refuse, dead animals, demolition wastes, construction wastes, solid or semisolid commercial and industrial wastes and hazardous wastes including explosives, pathological wastes, herbicide and pesticide wastes.

Solid Waste - means all putrescible and nonputrescible wastes, including but not limited to garbage, rubbish, refuse, ashes, waste paper and cardboard; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure, vegetable or animal solid and semisolid wastes, dead animals and other wastes; but the term does not include:

(a) Environmentally hazardous wastes as defined in ORS 459:410.

(b) Materials used for fertilizer or for other productive purposes or which are salvageable as such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals.

Solid Waste - means materials or substances discarded or rejected as being spent, useless, worthless or in excess to the owner at the time of such discard or rejection, except sewage and other highly diluted water carried materials or substances and those in gaseous form.

Solid Wastes or Wastes - include all putrescible and nonputrescible solid and semisolid wastes, such as refuse, garbage, rubbish, paper, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes, and also includes liquid wastes disposed of in conjunction with solid wastes at solid waste transfer/processing stations or disposal sites, but excludes: (1) sewage collected and treated in a municipal or regional sewerage system, or (2) materials or substances having commercial value which have been salvaged for reuse, recycling or resale.

Solid Waste - Garbage, refuse and other discarded materials including but not limited to solid and liquid waste materials resulting from industrial, commercial, agriculture and residential activities.

Solid Waste - is all putrescible and nonputrescible solid and semisolid wastes, including garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and discarded commodities.

Solid Waste Collection - is the gather- of solid waste from public or private places.

Collection - means the act of collecting solid waste at the place of waste generation by an approved collection agent (public or private) and is distinguished from "removal".

Solid Waste Collection - means the activity related to pickup and transportation of solid waste from its source or location to a disposal site.

Solid Waste Collection Service or service means the collection, transportation or disposal of solid wastes.

Solid Waste Collector - shall mean any person who collects or transports solid waste.

Solid Waste Disposal - disposition of solid waste by means acceptable under regulations adopted by the Board.

Solid Waste Disposal - means the collection, storage, treatment, utilization, processing, or final disposal of solid wastes.

Solid Waste Disposal or Disposal - means the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state.

Solid Waste Disposal Area - means a location utilized for ultimate disposal of wastes.

Solid Wastes Disposal Site and Facility - means the location and facility at which the deposit and final treatment of solid wastes occur.

Solid Waste Facility - means any solid waste disposal area, volume reduction plant or other facility the purpose of which is the disposal, processing or storage of solid waste including loading and transportation facilities or equipment used in connection with the processing of solid wastes.

Solid Waste Management Facility - means any facility employed beyond the initial solid waste collection process including, but not limited to, transfer stations, bailing facilities, rail haul or barge haul facilities, processing systems, including resource recovery facilities or other facilities for reducing solid waste volume, sanitary landfills, plants and facilities for compacting, composting or pyrolization of solid wastes, incinerators and other solid waste disposal, reduction or conversion facilities.

Solid Waste Management - means the purposeful and systematic transportation, storage, processing, recovery and disposal of solid waste.

Solid Waste Handling - means the storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes.

Solid Waste Handling - means the storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes.

Solid Waste Handling or Handling - means the collection, transportation, storage, transfer, or processing of solid wastes.

Solid Waste Management - includes all activities related to the collection and disposal of solid wastes by any person engaging in such process.

Solid Waste Management - the processes of storage, processing or disposal of solid wastes, not including hauling or transport.

Solid Waste Management - includes a planned program for effectively controlling the generation, storage, collection, transportation, processing and reuse, conversion or disposal of solid wastes in a safe, sanitary, aesthetically acceptable, environmentally sound and economical manner. It includes all administrative, financial, environmental, legal and planning functions as well as the operational aspects of solid waste handling, disposal and resource recovery systems necessary to achieve established objectives.

Solid Waste Management - means management of the storage, collection, transportation, treatment, utilization, processing and final disposal or salvage, recycling or reuse of solid waste and facilities necessary or convenient to such activities, including but not limited to transfer stations.

Solid Waste Management System - is a total concept for the storage, collection, transportation and disposal of solid waste.

Solid Waste Management System - means the entire process of storage, collection, transportation, processing, and disposal of solid wastes by any person engaging in such process as a business or by any municipality, authority, trust, county or by any combination thereof.

Solid Waste Storage - is the holding of solid waste near the point of generation.

Solid Waste Transportation - is the conveying of solid waste from one place to another, by means of vehicle, rail car, water vessel, conveyor or other means.

Storage - means the holding of abandoned motor vehicles and other scrap metal in regional collection sites.

Storage Area - means an area associated with a livestock feedlot, poultry lot or other animal lot in which animal manure is placed for storage until it can be utilized as fertilizer or removed to a permanent disposal site. This shall not include animal manure packs or mounding within the feedlot area.

Storage Costs - means costs of acquisition, rental, construction, maintenance and operation of regional collection sites and facilities.

Street Refuse - includes materials picked up by manual or mechanical sweeping of alleys, streets or sidewalks, litter from public litter receptacles and material removed from catch basins.

Surface Water - all water the surface of which is exposed to the atmosphere.

Surface Water - means the tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, lakes, ponds, springs, marshes, drainage systems and all other surfaces, bodies or accumulations of water, natural or artificial, public, or private which are contained within, flow through or border upon this State or any portion thereof.

Suspended Solids - are finely divided mineral and organic substances contained in the sewage existing in a sewage system.

Tipping Floor - is the unloading area for delivering solid waste to an incinerator, transfer station, or reclamation site.

Transfer Station - means a facility at which refuse, awaiting transportation to a disposal site, is transferred from one type of collection vehicle and placed into another.

Transfer/Processing Station or Station - includes those facilities utilized to receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport to their final place of disposition. (Also see Small Volume Transfer Stations.)

Transfer Station - means a volume reduction plant that is a central collection point for the solid waste of a municipality or group of municipalities where solid wastes received are transferred to a vehicle for removal to a solid waste disposal facility.

Transfer Station - is a fixed, supplemental, collection/transporation/disposal facility, used by persons and route collection vehicles to deposit solid wastes into a larger transfer vehicle for transport to the disposal site. This does not include a detachable container used for consolidation of the solid wastes from individuals in rural or small town populations.

Transfer Station - a supplemental transportation facility used as an adjunct to solid waste route collection vehicles. Such a facility may be fixed or mobile and may include recompaction of solid waste. Transfer stations are designed to reduce solid waste hauling costs and to add flexibility to solid waste management systems by transferring waste materials from smaller vehicles to larger ones such as tractor trailors or railroad cars.

Transfer Station - means a fixed or mobile facility normally used, as an adjunct of a solid waste collection and disposal system, between a collection route and a disposal site, including but not limited to a large hopper, railroad gondola or barage.

Transfer Station - a transfer station is an intermediate solid waste disposal facility for transferring loads of solid waste to a transportation unit having a larger capacity. There may be volume reduction at the transfer station. A transfer station may be fixed or mobile.

Transporter - means a person holding a license from the Agency to engage in transporting abandoned vehicles and other scrap metal.

Unauthorized Dump - shall mean any collection of solid wastes either dumped or caused to be dumped or placed on any property either public or private, whether or not regularly used, and not under the control and supervision of any person or agency.

An abandoned automobile, large appliance, or similar large item of solid waste shall be considered as forming an unauthorized dump within the meaning of these regulations, but not the careless littering of smaller individual items as tires, bottles, cans, and the like. An unauthorized dump shall also mean any solid waste disposal site which does not meet the regulatory provisions of these regulations.

Vector - includes any insect or other arthroped, rodent, or other animal capable of transmitting the causative agents of human disease, or disrupting the normal enjoyment of life by adversely affecting the public health and well being.

Vector - is a living animal, insect or other arthroped which transmits an infectious disease from one person or animal to another person or animal.

Vector - means an insect or rodent or other animal (not human) which can transmit infectious diseases from one person or animal to another person or animal.

Vector - any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

Vector (of disease) - an animal or insect which transmits infectious diseases from one person or animal to another by biting the skin or mucous membrane or by depositing infective material on the skin, food, or other object.

Volume Reduction Plant means a plant which is designed primarily for the purpose of reducing the volume of solid waste which must finally be disposed of, including but not limited to incinerators, pulverizers, compactors, shredding and baling plants, transfer stations, composting plants and other plants which accept and process refuse for recycling.

Vital Component Parts Vital component parts means those parts of a motor vehicle that are essential to the mechanical functioning of the vehicle, including, but not limited to, the motor, drive train, and wheels.

Waste means useless or discarded materials.

Waste Management Services means actions taken to effectuate the receipt, storage, transportation and processing for resources recovery and recycling or for ultimate disposal of solid wastes, including the sale of products, materials or energy on behalf of the state, a region, a municipality or a person by the authority or by any person or persons acting under contract with the authority, pursuant to the provisions of this chapter.

Water Pollution. Contamination of any water of the Commonwealth which will create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid, or other substances into such waters.

Watertable means that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.

Watertable - that surface in unconfined water at which the pressure is atmospheric and is defined by the levels at which water stands in wells that penetrate the water just far enough to hold standing water.

Working face - any part of sanitary landfill where refuse is being disposed.

Working face means that portion of the disposal area where the waste is deposited, spread and compacted prior to the placement of cover material.

APPENDIX B

MINNESOTA LAW - EXAMPLE OF COMPREHENSIVE INTER-COUNTY PLANNING

CHAPTER 473D

METROPOLITAN SOLID WASTE DISPOSAL

Sec.
473D.01 Legislative purpose and policy
473D.02 Definitions
473D.03 Metropolitan council, comprehensive plan
473D.04 Metropolitan counties; solid waste disposal report
473D.05 Metropolitan counties: acquisition of sites and facilities
473D.06 Rates and charges
473D.07 Pollution control agency, regulations and permits

473D.01 LEGISLATIVE PURPOSE AND POLICY. The legislature determines that for the protection of the public health, safety, and welfare of the people of the metropolitan area, for the prevention, control and abatement of pollution of air and waters of the state in the metropolitan area, and for the efficient and economic disposal of solid waste in the metropolitan area, it is necessary to authorize the pollution control agency to regulate the location and operation of solid waste disposal sites and facilities in the area, to authorize the metropolitan council to carry on a continuous, long range program of planning with respect to, and regulate the location and use of, solid waste disposal sites and facilities in the area, and to authorize the counties in the area to acquire, construct, operate, maintain and regulate solid waste disposal sites and facilities.

[*1969 c 847 s 1*]

473D.02 DEFINITIONS. Subdivision 1. The terms defined in this section shall have the meanings given them unless otherwise provided or indicated by the context.

Subd. 2. "Metropolitan area" means the area over which the metropolitan council has jurisdiction.

Subd. 3. "Metropolitan council" or "council" means the metropolitan council established by section 473B.02.

Subd. 4. "Metropolitan county" means any one of the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott or Washington.

Subd. 5. "Local government unit" means any municipal corporation or governmental subdivision other than a metropolitan county located in whole or in part in the metropolitan area, authorized by law to provide for the disposal of solid waste.

Subd. 6. "Person" means any individual, partnership, corporation, or other organization or entity, public or private.

Subd. 7. "Acquisition" and "betterment" shall have the meanings given to them in chapter 475.

Subd. 8. "Agency" means the Minnesota pollution control agency established by section 116.02.

Subd. 9. "Solid waste" means garbage, refuse and other discarded solid materials, including solid waste materials resulting from industrial, commercial and agricultural operations, and from community activities, but does not include earthen fill, boulders, broken rock and other materials normally handled in construction operations, solids or dissolved material in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants.

Subd. 10. "Solid waste disposal site or facility" means all property, real or personal, including negative and positive easements and water and air rights, which is or may be needed or useful for the disposal of solid waste, except property for the collection of solid waste.

[*1969 c 847 s 2*]

473D.03 METROPOLITAN COUNCIL, COMPREHENSIVE PLAN. Subdivision 1. The metropolitan council shall prepare and by resolution adopt a comprehensive plan for the disposal of solid waste in the metropolitan area for such period as the council deems proper and reasonable; and, when adopted, such plan shall be followed in the metropolitan area. In developing the plan the council shall consider the preservation and best and most economical use of land and water resources in the metropolitan area. The plan shall include a statement of goals and policies for solid waste disposal, criteria for solid waste disposal sites, the general location and capacities of needed disposal sites and facilities, projections of disposal capacities required, regulations for the operation of disposal sites and facilities, a description of disposal techniques which may be used, the type or types of solid waste to be disposed of at each site or facility, and such other details as the council deems appropriate. Criteria for solid waste disposal sites and regulations for the operation of disposal sites and facilities, included in the plan, shall be consistent with regulations adopted by the agency pursuant to section 473D.07. The plan may be revised as often as the council deems necessary in the same manner as provided for the adoption thereof. A copy of the comprehensive plan and each revision thereof shall be delivered or mailed to the agency and the county auditor of each metropolitan county after it has been adopted. Prior to the adoption by the council of its comprehensive plan, no metropolitan county or local government unit shall acquire any solid waste disposal site or facility unless approved by the council; and after the comprehensive plan is adopted no metropolitan county, local government unit or person shall acquire, improve or operate any solid waste disposal site or facility in the metropolitan area except in accordance with the plan, provided that no solid waste disposal site or facility in use when the comprehensive plan is adopted shall be discontinued solely because it is not located in an area designated in the plan as acceptable for the location of such sites and facilities.

Subd. 2. Prior to the adoption of a comprehensive plan pursuant to subdivision 1, the council shall hold a public hearing thereon at such time and place in the metropolitan area as it shall determine. A notice of such hearing shall be published once each week for two successive weeks in the official newspaper of each metropolitan county, the first publication to be not less than 30 days before the hearing. A copy of the notice and the proposed comprehensive plan shall also be sent by certified mail, not less than 30 days before the hearing, to the agency and the governing body of each metropolitan county and each local government unit wherein a solid waste disposal site or facility is or may be located in accordance with the plan. The notice shall specify the time, date and place of hearing, and the time and place where a copy of the proposed comprehensive plan may be examined by any interested person.

[1969 c 847 s 3]

473D.04 METROPOLITAN COUNTIES; SOLID WASTE DISPOSAL REPORT. Each metropolitan county, upon receipt of the council's comprehensive plan, shall prepare and submit to the council for its approval, a report including: a description of any solid waste disposal site or facility which the county owns or plans to acquire to implement the comprehensive plan; the planned method, estimated cost and time of acquisition thereof; a description of any improvements which will be necessary to make the site or facility suitable for solid waste disposal; proposed procedures for the operation and maintenance of any such site or facility; an estimate of the annual cost of operation and maintenance of each site or facility; an estimate of the annual gross revenues which will be received from the operation of each site or facility; and a proposal for the use of each site when filled. The report shall also include a complete survey of existing or proposed municipal or private solid waste disposal sites and facilities in the county containing information similar to that required for county facilities, and a statement of the extent to which they will or may be used to implement the comprehensive plan. The council shall approve the report if it is in accordance with its comprehensive plan. The report, when approved by the council, shall be implemented by the county. Each report not approved by the council shall be returned to the county with a statement of the reasons for the council's failure to approve it.

[1969 c 847 s 4]

473D.05 METROPOLITAN COUNTIES; ACQUISITION OF SITES AND FACILITIES. Subdivision 1. To accomplish the purpose specified in section 473D.04, each metropolitan county may acquire by purchase, lease, gift or condemnation as provided by law, upon such terms and conditions as it shall determine, including contracts for deed and conditional sales contracts, solid waste disposal sites or facilities which are in accordance with regulations adopted by the agency, the comprehensive plan adopted by the council and the county report as approved by the council, and may improve or construct improvements on any site so acquired. The right of condemnation shall be exercised in accordance with chapter 117. A metropolitan county may acquire property for and operate a solid waste disposal site or facility within the boundaries of any city, village, borough or town in the metro-

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politan area, without complying with the provisions of any zoning ordinance adopted after April 15, 1969.

Subd. 2. Each metropolitan county may by resolution authorize the issuance of bonds to provide funds for the acquisition or betterment of property rights, buildings, structures and equipment for a solid waste disposal site or facility, or for refunding any outstanding bonds issued for any such purpose, and may pledge to the payment of such bonds and the interest thereon, its full faith, credit and taxing powers, or the proceeds of any designated tax levies, or the gross or net revenues or charges to be derived from any such site or facility operated by or for the county, or any combination thereof. Taxes levied for the payment of such bonds and interest shall not reduce the amounts of other taxes which the county is authorized by law to levy. No election shall be required to authorize the issuance of any such bonds. Except as otherwise provided, such bonds shall be issued and sold in accordance with the provisions of chapter 475.

Subd. 3. Each metropolitan county may operate and maintain solid waste disposal sites and facilities, and for this purpose may employ all necessary personnel, may adopt regulations governing the operation thereof, may establish and collect reasonable, non-discriminatory rates and charges for the use thereof by any local government unit or person, estimated to be sufficient, with any other moneys appropriated for such purpose, to pay all costs of acquisition, operation and maintenance thereof.

Subd. 4. Each metropolitan county may contract with any person for the operation and maintenance by such person of any solid waste disposal site or facility owned by it. Such contract shall provide for the operation and maintenance of such site or facility in accordance with any regulations of the agency, the metropolitan council and the county relating thereto.

Subd. 5. Each metropolitan county may also adopt ordinances governing the operation of solid waste disposal sites or facilities in the county by any local government unit or person. Such ordinances shall be consistent with applicable regulations adopted by the agency or the metropolitan council. The county may prescribe a penalty for the violation of any such ordinance not exceeding the maximum which may be specified for a misdemeanor. Any ordinance prescribing a penalty for violation shall be published at least once in the official newspaper of the county.

Subd. 6. Each metropolitan county may accept gifts, may apply for and accept grants or loans of money or other property from the United States, the state, the metropolitan council, any local government unit, or any person, for solid waste disposal purposes, may enter into any agreement required in connection therewith, and may hold, use, and dispose of such money or property in accordance with the terms of the gift, grant, loan or agreement relating thereto.

Subd. 7. Each metropolitan county and local government unit may act under the provisions of section 471.59 or any other appropriate law providing for joint or cooperative action between government units, to accomplish any purpose specified in section 473D.01 to 473D.05.

Subd. 8. Each metropolitan county may sell or lease any property rights, land, buildings, structures or equipment previously used or acquired for solid waste disposal purposes. Such property may be sold in the manner provided by section 458.196. Each metropolitan county may convey to or permit the use of any such property by a local government unit, with or without compensation, without submitting the matter to the voters of the county. No property rights or land, improved or unimproved, acquired pursuant to this section, may be disposed of in any manner unless and until the county shall have submitted to the metropolitan council for review and comment the terms on and the use for which the property will be disposed of. The council shall review and comment on the proposed disposition within 60 days after it has received the data relating thereto from the county.

Subd. 9. All moneys received by any metropolitan county from any source specified in sections 473D.01 to 473D.05 shall be paid into the county treasury, placed in a special fund designated as the county solid waste disposal fund, and used only for the purposes authorized in those sections, as appropriated by the county board, subject to any lawful restrictions, conditions, or pledges applicable thereto.

[1969 c 647 s 5]

473D.06 RATES AND CHARGES. On or before July 1, 1969, and thereafter whenever appropriate, each metropolitan county and local government unit shall submit to the metropolitan council a schedule of rates and charges in effect or proposed for the use of any solid waste disposal site or facility owned or operated by or on its behalf, together with a statement of the basis for such charges. Each county or local government unit shall use the schedule of rates and charges submitted by it until it submits to the council a different schedule. Each person who has applied to the agency for a permit to commence or continue the operation of a solid waste disposal site or facility in the metropolitan area shall also submit to the metropolitan council a schedule of rates and charges in effect or proposed for the use of the solid waste disposal site or facility, and shall notify the council of any changes therein within ten days after such change is placed in effect.

[*1969 c 847 s 6*]

473D.07 POLLUTION CONTROL AGENCY, REGULATIONS AND PERMITS. Subdivision 1. The pollution control agency, to abate or prevent pollution of air and waters of the state in the metropolitan area, shall adopt regulations relating to the location and operation of solid waste disposal sites and facilities in the metropolitan area. In adopting such regulations the agency shall consider applicable air and water pollution standards, land and water use, soil conditions, geography, topography, natural drainage, prevailing weather conditions, the costs of acquisition and operation of such sites and facilities, and any other factors it may deem relevant. Such regulations shall be adopted in accordance with chapter 15.

Subd. 2. In the metropolitan area, no metropolitan county, local government unit or person shall commence operation on or after July 1, 1969, and no metropolitan county, local government unit or person shall continue operation on or after January 1, 1970, of any solid waste disposal site or facility, unless a permit for the operation thereof has been issued by the agency, or unless the site or facility is approved for temporary operation by the agency prior to the issuance of a permit.

Subd. 3. The agency may prescribe permit and permit application forms, and may request applicants to submit in writing all information deemed relevant by the agency. The agency, or any employee or agent thereof, when authorized by it, may examine any books, papers, records or memoranda of the applicant pertaining to its solid waste disposal site or facility, and may enter on any property, public or private, for the purpose of obtaining information, conducting surveys or making investigations relative to the location or operation of a solid waste disposal site or facility. The agency may issue permits for the operation of solid waste disposal sites and facilities by any metropolitan county, local government unit or person where the operation thereof is consistent with applicable regulations adopted by the agency pursuant to subdivision 1, provided that no permit may be issued for the operation of a solid waste disposal site or facility in the metropolitan area which is not in accordance with the metropolitan council's comprehensive plan. The metropolitan council shall determine whether a permit is in accordance with its comprehensive plan. For this purpose the agency shall send a copy of each permit application and any supporting information furnished by the applicant to the metropolitan council within 15 days after receipt of the application and all other information requested from the applicant. Within 45 days after the application and supporting information are received by the council, it shall issue to the agency in writing its determination whether the permit is in accordance with its comprehensive plan. If the council does not issue its determination to the agency within the 45 day period, the permit shall be deemed to be in accordance with the council's comprehensive plan.

Subd. 4. Regulations adopted pursuant to subdivision 1 may be enforced by the agency in the manner provided in section 115.47.

[*1969 c 847 s 7*]

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Law

Regulation

Policy statement

SHORT FORM RESIDUAL WASTE QUESTIONNAIRE

Legislation to be covered in interviews and Review of Laws. Each of these must be addressed in our model law. If NONE of the states or cities have a successful provision - we must DRAFT one for the report.

- Incentives of any kind - for going beyond minimum requirements of act
- Requirement for areawide waste management
- Monitoring System Provisions
- Authority to issue or withold

  Permits
  Licenses

    - To collect
    - To transport
    - To deposit on land
    - To open land fill
    - To operate land fill
- Sanctions for non-compliance
    - Civil - damages - TRO
    - Criminal - fines - jail?
- Re: Organizational form of implementing agency
    - Name of agency(s)
- Number of agencies sharing some part of responsibility
    - All responsibility merges

Not applicable to city or county ords.

- A Governor's Office
- 1 level below Gov. Office
- 2 levels " " "
- 3 levels " " "

- Organization has authority to and does provide:
    - Planning and management statewide
    - Consistent enforcement of the law (Agency enforcing ____________)
    - $/Effective programs for alternative:
        - Selector ____________________
        - Operator ____________________
        - Financing of solid waste operations ____________________
        - For due process - notice and an opportunity to be heard ____________
- No. of people in state office (and recent trends) dedicated to implementing total program? ____________________
- S.W. People: Population of state = ratio =

  ____

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Law

Regulation

Policy statement

Does the statute (ordinance) or the regulations - or policy statement provide for:

- Site selection procedure, what does it say:
- Public education ______________________
- Public health ______________________
- Transportation of solid waste ______________
  - " several classes of waste __________
- Reuse/recovery incentive ______________
- Waste reduction program
  - Oregon type container deposit ________
- Washington type disposal tax ______________
  - Auto abandonment fee/fine __________
- Characteristics of permit system
  - Requirements for issuance __________
  - Severability? ______________
  - Duration ______________
  - Amendability ______________
  - Renewability ______________
  - Revocability ______________

RESIDUAL WASTE QUESTIONNAIRE

OBJECTIVE: To obtain data with which to judge the effectiveness of Residual Waste Legislation

1. a) Has there been an increase for expenditures for support and implementation of current residual waste programs to meet federal water quality standards over that of prior programs?

   b) Is it costing more or less to handle waste loads under the new legislation?

   c) Is the data available which shows the cost per ton before and after the new law?

      Before:

      After:

2. a) How many impervious bottom sites or other "safe" disposal sites are presently available for use?

   b) Is there data available which shows the increased or decreased tonnage being deposited into these areas?

   (Express comparison in tons/year or as a percentage)

   c) Is the increased tonnage a direct result of segregating and directing residual waste which must be disposed of in these sites for best environmentally safe disposal?

3. Can you identify any resulting new products or new uses of residual waste material which have been developed through recycling or reuse programs?

4. Is it possible to provide data showing what tonnage of waste was attributed to licensed carriers under prior requirements, compared to tonnage transported by qualified carriers under current criteria?

   Is this tonnage data helpful to you in planning future site needs?

   In knowing what is going into the land fills?

5. a) Do you monitor leachates and run off from disposal sites? (Is there data available to show the frequency of the monitoring, i.e., routinely, when a water quality problem is suspected).

   b) Have the requirements promulgated by the current legislation caused a reduction in the amount of residual wastes re-entering an area's ground water or surface water once it has been deposited upon the land?

   c) Is there any solid statistical evidence of a change?

6. a) What sanctions are provided for enforcing compliance with the current legislation? (e.g., administrative hearings, civil and criminal suits).

6. b) Do you have available data which shows the yearly frequency with which enforcement actions are used?

   c) Has the number of actions instituted increased significantly under the new law?

   d) With respect to the penalties provision do they achieve the desired result(s)?

   e) What percentage of enforcement actions result in agreements to comply, fines, penalties and/or sanctions?

7. a) What is the policy for employing the various sanctions incorporated within the current legislation for enforcement? (Use of conferences or warnings before imposition of more stringent sanctions).

   b) What strength has the current legislation added to the force and effect of "warnings"?

   c) Can you compare the number of repeat violators under prior legislation with the number of repeaters under current legislation? (any change at all?)

   d) Has the provision for stringent penalties (i.e., $10,000/day when in violation) caused a significant reduction in the number of repeat violators?

8. a) What incentives have been used or are contemplated for use to encourage industry to process, recycle, or reuse residual waste materials? (e.g., Tax abatement up to cost of pre-processing equipment).

   Other?

   b) Have these incentives reduced or increased (measurably) the residual waste load on landfills?

9. Are new local or state laws needed to encourage reuse or recycling, and if so, what provisions would be most effective? e.g., Lower freight rates for secondary materials.

10. What major or minor revisions are to be made to the initial legislation or to the implementation of the specific legislation?

11. a) Is there a state body which will/can provide technical inputs for area residual waste plans?

    b) Is this assistance contributing significantly to the solution of the residual waste problem? (Can you identify specific benefits, e.g., reduction of waste loads on waters and/or landfills?

12. Are there sections of the residual waste legislation which significantly detract from the authority and strength of the agency established to implement the residual waste program?

13. How comprehensive are the legislative provisions identifying and regulating HAZARDOUS WASTE?

    a) Are these substances regulated by a separate authority? Would a single authority be more effective?

14. What criteria do you or would you use to measure the effectiveness of New Residual Waste Legislation?

15. Do the county or local agencies have any serious constraints on their use of "eminent domain" to condemn and acquire sites suitable for an impervious bottom land fill? What type of legislation or policy statement is needed to strengthen your power in this area? (If it is important to you).

16. Minnesota and Illinois have law that pre-empts local zoning authority in locating (siting) new landfills.

   a) Does your state have such authority?

   b) Is such authority needed?

   c) Is it a workable provision?

17. a) Has your state made provision to ensure a continued decrease of automobile abandonment? (e.g., tax on auto sales imposed to create a fund, penalties, fines).

   b) Is there any provision made for permitting motor vehicle bodies to be used beneficially in land fills? (e.g., land reclamation, erosion control).

18. The concept of beverage container deposits as a control mechanism has been implemented in Oregon.

   a) Does your state foresee this "tax" as a viable alternative?

   b) What amount would be acceptable to your constituency? (e.g., $.05/every metal or glass container).

19. a) Has there been any provision made for incentive to encourage the use of solid waste as fuel in municipal utility boilers for the generation of heat and/or electricity?

   b) Does such a use have merit in your situation?

20. Product disposal taxes, providing a fund to finance the ultimate disposal of the product (other than automobiles), are already in use in the State of Washington.

   a) Is this a viable solution toward waste control in your state?

   b) Would your constituency accept such a position?

21. Under California's Porter-Cologne Water Quality Control Act amended 1974 in any civil action seeking injunctive relief it is not necessary to prove that irreparable injury will occur or that the remedy at law is inadequate.

   a) Is such a feature operative in your state?

   b) Do you feel such a feature would benefit your regulatory scheme?

22. Waste reduction - Minnesota provides technical assistance to industry regarding means of reducing packaging wastes created by industry. Do you have a similar activity? Do you perceive a benefit therein?

APPENDIX D - FEDERAL LAWS AND REGULATIONS

The following is a list of federal laws and regulations that deal directly or indirectly with residual wastes. The 208 planner may find some or all of the following laws or regulations useful or informative in dealing with residual waste problems in his area.

1. 33 U.S.C. (United States Codes) §-(Section) 1151 et. seq. Federal Water Pollution Control Act Amendments of 1972. This act authorizes 208 planning grants and mandates consideration of residual wastes in areawide planning. It is the act which gave authority for the following regulations.
   - (a) 40 C.F.R. (Code of Federal Regulations) part 35 "Grants to Designated Areawide Waste Treatment Management Planning Agencies and to State Agencies". This regulation outlines grant conditions, procedures, plan content and approval.
   - (b) 40 C.F.R. Part 126 "Areawide Waste Treatment Management Planning and Responsible Planning Agencies". This regulation sets criteria for establishing 208 areas and procedures for designation as a 208 area.
   - (c) 40 C.F.R. Part 40. This regulation sets procedures and requirements for obtaining research and demonstration grants for waste recycling or reuse.
   - (d) 40 C.F.R. Part 45. This regulation sets procedures for obtaining grants for education of personnel on waste treatment, disposal, reuse etc.
   - (e) 40 C.F.R. Part 110 "Discharge of Oil". This regulates oil spills or discharges onto lands contiguous to navigable waters.

(f) 40 C.F.R. Part 1510 "National Oil and Hazardous Substance Pollution Contingency Plan". This provides regulations governing a federal plan to clean up spills of substances that present a threat to navigable waters.

2. 42 U.S.C. §3251 et. seq. Solid Waste Disposal Act of 1965 (as amended by the Resource Recovery Act of 1970). This act provides federal assistance for solid waste planning and management and is the authority for the following regulation.

   40 C.F.R. Part 243 "Storage and Collection of Residual, Commercial and Institutional Solid Wastes". This regulation sets requirements for waste handling by federal agencies and is a recommendation for state and local activities in solid waste management.

3. 86 Statutes Federal Insecticide, Fungicide and Rodenticide Act of 1972. This act was designed to control the dangers to health and environment presented by the above pesticides and is the authority for the following regulation.

   40 C.F.R. Part 165 "Regulations for the Acceptance of Certain Pesticides and Recommend Procedures for the Disposal and Storage of Pesticides and Pesticide Containers".

4. 42 U.S.C. §1857 et. seq. "Clean Air Act". This law gives authority for the following regulation.

   40 C.F.R. §§60.50-60.54 (Subpart E) "Standards for Performance of Incinerators". This regulation would impact incineration of residual wastes.

5. The following regulations were issued under various laws authorizing regulations by the Department of Transportation and the Interstate Commerce Commission.

   (a) 49 C.F.R. Parts 170-179. These regulations deal with transportation of "Hazardous" materials in interstate commerce and would impact transportation of most hazardous wastes.

(b) 49 C.F.R. Part 1062 "Special Regulation For For-Hire Motor Carriers Engaged in the Transportation for Recycling or Reuse of Waste Products in Furtherance of Recognized Pollution Control Programs".

6. The following regulation was authorized by a law relating to the Department of Agriculture (7 U.S.C. §1989).

   7 C.F.R. Part 1823 "Association Loans and Grants - Community Facilities, Development, Conservation, Utilization". This regulation sets guides for obtaining federal loans (through Farmers Home Administration) to rural areas, for among other things, solid waste disposal facilities.